January 18, 2002

ADAPT Job No. WA99-2877-2

Acrowood Corporation, Inc.
4425 South Third Avenue
Everett, WA 98206

Attention: Mr. Farhang Javid

Subject: Closure Report
Acrowood Corporation Facility
4425 South Third Avenue
Everett, Washington

Dear Mr. Javid:

LSI ADAPT, Inc. (ADAPT) is please to present this Closure Report for the above referenced site. This report contains the results of ADAPT's characterization of the site conditions and presents the technical rationale for closure of the site. This report can be submitted to the Washington State Department of Ecology for their Voluntary Clean Program to request a determination of no further action.

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ADAPT appreciates the opportunity present the results of this project. If you have any questions, or if we can be of further assistance to you, please contact us at (206) 654-7045.

Respectfully Submitted,

LSI ADAPT, Inc.

Keith A. Ross, P.G.
Senior Environmental Project Manager

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0.0 EXECUTIVE SUMMARY

The site is located at 4425 South Third Avenue, in Everett, Washington. The site was first developed in the late 1890s/early 1900s as an iron foundry. The site was then used as a metal fabrication facility from the early 1970s to approximately 1984, and is currently used for metal fabrication of cutting, chipping and sorting equipment for the lumber industry. During subsurface assessments conducted in 1999 and 2000 by LSI ADAPT, site soils and groundwater were found to contain pockets of soils with elevated levels of diesel and heavy oil range hydrocarbons, polynuclear aromatic hydrocarbons (PAHs) and trichloroethene (TCE).

After a review of site conditions, it does not appear that site soil conditions pose a significant threat to human health, and the environment. Site soil conditions meet the criteria for site closure as provided by the Washington State Model Toxics Control Act (MTCA) Method B.

Although site groundwater is impacted with TPH and TCE above the criteria defined by MTCA Unrestricted Use, the exhibited groundwater concentrations passes the criteria for MTCA Method B Potable Groundwater Protection, and importantly, evidence does not indicate that significant concentrations of analytes are migrating off site. Risk-based calculations indicate existing on-site concentrations of PAHs in groundwater do not pose unacceptable levels of risk to future industrial site development.

Based on this information, which is discussed in detail below, ADAPT believes the site qualifies for a "no further action" (NFA) letter. We understand that restrictive covenants, as determined by Ecology, may be an appropriate condition for the NFA.

1.0 INTRODUCTION

This report presents the results of recent subsurface assessment activities to characterize the subsurface conditions at the above referenced facility. A vicinity map of the site appears on Figure 1. The approximate site boundaries, former property usages including former buildings, as well as soil borings, monitoring well locations, Geoprobe locations, and soil vapor sample locations are presented on the Site & Exploration Plan, Figure 2. This report was prepared to meet Washington State Department of Ecology requirements to address the nature and restoration of a petroleum hydrocarbon release at the site, in a manner that adequately protects the public health, safety, welfare, and the environment. The site owners wish to enter Washington State Department of Ecology's Voluntary Cleanup Program to pursue eventual site closure including Ecology review of site characterization and remediation approaches.

The site owner, Acrowood Corporation requested ADAPT to review site conditions and perform risk-based calculations for the purpose of obtaining a no further action (NFA) letter from the Washington Department of Ecology (Ecology) for the site property. The purpose of this document is to provide Ecology with sufficient information regarding site conditions such that an NFA may be considered and issued.

2.0 SITE DESCRIPTION

The site is located at 4425 South Third Avenue in an industrial and residential portion of southeast Everett, Township 29 North, Range 5 East W.M, Section 32. The site is approximately 20.84 acres, and is irregular in shape. The main portion of the site is graded level with a steep slope on the eastern property line. According to the USGS topographical map, the graded portion of the site is at an elevation of about 60 feet above mean sea level (msl) which

slopes down to approximately 10 feet msl at the base of the eastern slope. A location/topographical map is provided as Figure 1.

The site is occupied by approximately 13 buildings generally located on the central and northern portions of the site. The southern portion of the site is undeveloped. The remaining areas in the northern and central areas are either gravel covered or paved with asphalt driveway and parking surrounding the administration/office building in the central portion of the site. According to information obtained at the Snohomish County Assessor's office, the site is zoned "M-1" for general manufacturing/industrial uses. The site consists of six tax parcels totaling a reported 21.07 acres.

The site is currently used as a metal fabrication facility for forestry industry equipment including sorting and chipping machines. The facility was originally constructed in 1913 as an iron and metal foundry (Sumner Iron Works), which occupied the site until the early 1970s. The site has been used as a metal fabrication facility since the early 1970s. Acrowood has occupied the site since 1984.

3.0 PROJECT BACKGROUND

3.1 Summary of Previous Activities

ADAPT has conducted several phases of environmental assessment and subsurface characterization work at the site. Previous environmental reports are summarized below and provided as appendices to this document.

3.1.1 Preliminary Phase II Environmental Site Assessment (dated November 30, 1999, ADAPT Engineering, Inc)

The purpose of the Preliminary Phase II was to assess soil, and if encountered, groundwater, conditions beneath the site to provide data for evaluation of possible contaminants associated with environmental recognized concerns identified in ADAPT's Phase I dated August 20, 1999. A copy of the Phase I ESA is attached in Appendix B and a copy of the Preliminary Phase II ESA is attached in Appendix C. A brief summary of the Preliminary Phase II follows.

During ADAPT's preparation of a Phase I ESA, research revealed that the site has been used as an iron and metal foundry since 1913. Historical information indicated that Sumner Iron Works used the site for metal and iron casting and molding from 1913 to approximately the early 1970s. The site was occupied by Black-Clawson-Sumner as a metal fabrication facility until 1984. The current occupant, Acrowood, has operated the site for metal fabrication of forestry industry equipment since 1984. The Phase I ESA identified five potential recognized environmental concerns that included a former (heating oil) underground storage tank, a area where a former fuel oil tank was located, a paint storage building, iron and foundry waste fill area, and a storm water discharge pipe. ADAPT conducted a Preliminary Phase II ESA to evaluate possible impacts from the noted Phase I recognized environmental conditions. The Preliminary Phase II ESA consisted of advancing 16 Geoprobe borings to depths of between 8 and 22 feet in five noted areas of concern. Representative soil and groundwater samples were collected for analytical testing. The field and analytical data suggests that three of the five areas of concern exhibited petroleum hydrocarbon or halogenated volatile organic compounds in soil or groundwater above State of Washington Department of Ecology (Ecology) Model Toxics Control Act Method A or B Cleanup Levels. The following recognized environmental concerns

were assessed during the Preliminary Phase II ESA:

- **Former UST (heating oil tank):** Anecdotal information indicated that a former gasoline underground storage tank (UST) was located between the Maintenance Shop and the Storeroom east of the Machine Shop. The UST was reportedly removed in the late 1970s. No information was available on the UST removal. Analytical results from three borings placed in and around the former UST indicate that there has been a diesel release beneath the location of the former UST. Boring P8 exhibited faint hydrocarbon odors and chemical analysis revealed 983 parts per million (ppm) of diesel and 1,920 ppm of heavy oil hydrocarbons in the soil. In order to characterize the extent of release two additional borings were placed approximately 8 and 15 feet radial to the west and south of P8 in the vicinity of the former UST. Analytical results appeared to limit the lateral extent of petroleum hydrocarbon migration to an area within approximately 8 to 10 feet of P8 and a depth of approximately 6 to 9 feet below ground surface.

- **Former Fuel Oil Tanks:** The 1960 Sanborn Map, reviewed by ADAPT, depicts suspect fuel oil tanks located adjacent to the steel shop on the east edge of the site. According to Acrowood personnel, the tanks were removed prior to the 1970s when Acrowood purchased the site. No additional information was available regarding the nature of these suspect tanks. Based on the location and current limited access to the area it is likely that the fuel oil tanks were above ground tanks. Analytical results from borings placed in and around the suspected fuel oil tanks area indicate that there has been a release of petroleum hydrocarbons. One boring (P1) placed within the estimated footprint of the fuel tanks, exhibited heavy staining and residual free product adhering to the soil particles from approximately 5 to 15 feet below ground surface. Analytical results from a soil sample at 16 feet below ground surface exhibited concentrations of diesel and heavy oil at 10,000 and 4,010 ppm, respectively. Two additional borings (P3 and P2) were placed approximately 12 and 20 feet radial from P1, respectively, to the west and south, to delineate the lateral migration of the petroleum hydrocarbon. Diesel and heavy oil hydrocarbons were exhibited in P3, at 134 ppm for diesel and 210 for heavy oil, but not in P2. Analytical results appeared to limit the lateral extent of the release to an area within approximately 10 to 12 feet of P1. Vertical soil sampling results appeared to delineated the vertical extent to between approximately 4.5 feet and 20 feet below ground surface.

- **Paint Storage Building:** Based on waste notification documents and discussions with Acrowood personnel, chlorinated and other solvents including trichloroethylene (TCE), 1,1,1-Trichloroethane (TCA), Methyl Ethyl Ketone (MEK), and mineral spirits were used prior to 1995 to clean parts, and as paint thinners in the paint area. These chemicals were reportedly stored in the paint/solvent storage building located at the southern end of the main building. Analytical results from borings placed in and around the Paint/Solvent Storage Building indicate that there has been a release of chlorinated solvents to soil and groundwater beneath the building. Soil samples from boring P7 exhibited 0.055 ppm of trichloroethene and P6 exhibited 8.38 ppb of trichloroethene in groundwater samples. Samples obtained from Boring P5 did not exhibit any detectable concentrations of any chlorinated solvents.

- **Waste Iron and Slag Fill Material:** Field observations made along the eastern edge of the site suggest that waste iron and slag from the iron foundry, was apparently disposed of on the south and east side of the site. It was assumed there was a potential for environmental

impacts in this area due to the presence of metals and waste casting materials. The analytical results from samples obtained from the soil borings and field observations did not indicate that the fill soils and iron slag are impacting the underlying native soils with lead, arsenic, cadmium, or chromium. Groundwater was not encountered during the Geoprobe borings to depths of 16 feet.

- **Storm water drain discharge pipe:** There is a low potential for impact to the subsurface soils from petroleum hydrocarbon and on-site chemical usage and releases to the ground surface which may have been washed into the storm drain system during periods of precipitation. Storm water drains pass through the main building and discharge at the eastern edge of the site and have the potential to collect spills and releases from inside the building. Metal shavings and stained soil observed at the discharge pipe appear to indicate that petroleum hydrocarbons may have impacted the soil beneath the discharge pipe. Analytical results and field observations did not indicate that petroleum hydrocarbons, chlorinated solvents, or lead, arsenic, cadmium or chromium are present above MTCA Method A Cleanup levels, in the subsurface soils sampled and tested beneath the storm water outflow area.

3.1.2 Supplemental Phase II Environmental Site Assessment (dated May 23, 2000, ADAPT Engineering, Inc.)

Based on the results of the Preliminary Phase II ESA three of the five areas of concern identified in the Phase I exhibited petroleum or halogenated hydrocarbon impacts to soil and/or groundwater. These areas included the former UST area, the suspected fuel tank area and the paint storage building. A Supplemental Phase II was performed to further delineate the extent of soil and groundwater impacts in these three areas. A brief summary of the Supplemental Phase II follows. The full report is attached in Appendix D.

In order to further delineate the extent of petroleum hydrocarbon and TCE impacts identified in the Preliminary Phase II ESA at the three areas of concern additional Geoprobe borings were advanced. In addition, in order to evaluate possible source areas for the TCE a soil vapor and shallow soil sampling survey was conducted in and adjacent to the paint storage building.

- **Paint Storage Building:** A preliminary soil vapor and soil sampling survey was conducted beneath the paint/solvent storage building. Four soil vapor and soil samples were collected from approximately 2.5 feet below the top of the concrete floor slab of the building. In addition two additional Geoprobe borings were placed in the assumed downgradient and crossgradient location relative to the building. Analytical results from the soil vapor survey and Geoprobe borings, placed in and around the Paint/Solvent Storage Building, indicate that there has been a minor release of chlorinated solvents (trichloroethene) to soil and groundwater. The assessment and subsurface characterization work appears to indicate that the vertical and horizontal extent of the impact is limited to the vicinity of the building, and does not appear to migrate off-site.

- **Former UST:** One additional Geoprobe boring was placed on the eastern side (assumed downgradient direction) of the former UST pit to evaluate the eastern extent of the soil impacts and document whether the groundwater has been impacted by diesel and heavy oil range petroleum hydrocarbons downgradient of the former UST. Analytical results from borings placed in and around the former UST indicate that there has been a petroleum release beneath the location of the former UST. Samples from Boring P8 produced faint

hydrocarbon odors and exhibited concentrations of 983 ppm of diesel and 1,920 ppm of heavy oil hydrocarbons in the soil when tested during the Preliminary Phase II. Three borings (P9, P10 and P19) have been located around P8 in order to characterize the lateral extent of petroleum hydrocarbon migration. Analytical results appeared to limit the lateral extent to an area within approximately 8 to 10 feet of P8. Groundwater analytical results appear to indicate that groundwater has not been impacted by the petroleum release. Further, the observed concentrations of diesel and heavy oil range hydrocarbons is below the MTCA Method A Cleanup level of 2,000 ppm, for soils.

- **Former Fuel Tank Area:** Analytical results from borings, placed in and around the suspected fuel tank area, indicate that there has been a release of heavy oil and diesel petroleum hydrocarbons. The laboratory has identified the petroleum as similar to bunker C fuel oil. Boring P1 and P20 had heavy staining and apparent residual free product in the soil. The observed residual product appeared viscous and immobile. Four additional borings (P2, P3, HA1 and HA2) were placed south, west, east and northeast of P1 approximately 20, 12, 10 and 15 feet radial from P1, respectively. Observed concentrations of heavy oil and diesel range hydrocarbons were below MTCA Cleanup levels of 2,000 ppm, for soils. Analytical results from soil and groundwater samples appear to indicate that the area of petroleum hydrocarbon impact is localized to an area approximately 10 to 15 feet radial from P1 and P20 to the east, west and south. The vertical extent of the release appears to be located from approximately 8 to 15 feet bgs. Due to the presence of the steel shop building the northern lateral extent was not delineated. It is possible there may be residual localized petroleum hydrocarbons beneath the steel shop structure.

3.1.3 Groundwater Monitoring Well Installation and 1st Quarter Groundwater Quality Monitoring Report (dated August 29, 2000, ADAPT Engineering, Inc.)

Based on the results of the Supplemental Phase II ESA three groundwater-monitoring wells were installed to assess the groundwater beneath the former fuel tank area adjacent to the south wall of the fabrication shop. A Groundwater Monitoring Well Installation Report dated August 29, 2000 was prepared detailing the installation of the three monitoring wells and the results of the first quarterly groundwater quality sampling. A brief summary of the Supplemental Phase II follows. The full report is attached in Appendix E.

At the time of well installation groundwater was estimated to be flowing to the east towards the Snohomish River. The upgradient well was placed approximately 30 feet west of the Geoprobe borings that were located in the former fuel tank area during the Phase II assessments. Two downgradient wells were placed approximately ten feet east of the retaining wall on the fire lane easement.

The three groundwater monitoring wells were sampled using low-flow purge and sample methods to minimize interferences caused by particulate material. Based on results from the initial (1st Quarter) sampling event, groundwater was observed to be flowing east-southeast. Analytical results indicated that heavy oil range hydrocarbons observed in the Geoprobe and hand auger borings were not exhibited above the standard laboratory detection in any of the three wells.

3.1.4 Quarterly Groundwater Quality Monitoring Reports [2nd, 3rd & 4th] (ADAPT Engineering, Inc./LSI ADAPT, Inc.)

ADAPT conducted three additional quarterly sampling events in the groundwater wells installed in the vicinity of the former fuel tanks. Based on the results of the additional quarterly sampling no diesel and heavy oil range hydrocarbons, or PAHs, were detected above the standard laboratory detection limits in the upgradient or downgradient wells. The Quarterly Groundwater Quality Monitoring Reports are attached in Appendix F.

4.0 SUMMARY OF SITE CONDITIONS

4.1 Subsurface Soils Conditions

Based on the results of the subsurface environmental assessment work conducted to date, the site has three areas with residual soil contamination. The soil beneath the Paint Storage Building has been impacted by an apparently small release of trichloroethene. The Former UST area adjacent to the Shipping and Receiving building, and the Former Fuel Oil Tank Area adjacent to the Steel Shop have been impacted by diesel and heavy oil range petroleum hydrocarbons. The analytical results have delineated the approximate lateral and vertical extents of the impacted areas. The following sections present more detailed description of the extent of residual soil contamination.

4.1.1 Paint Storage Building Area

Three Geoprobe borings and four hand auger borings beneath and proximal to the paint storage building were used to delineate the likely lateral extent of the observed trichloroethene impacts in soil. Soil vapor samples were also collected from the hand auger borings to identify potential source areas beneath the building. The former trichloroethene storage container reportedly was located in the southwest corner of the building. Therefore, the Geoprobe borings were placed as close to the building as accessible due to utilities and drill rig limitations. The borings were located approximately 8 to 10 feet from the south side of the building. One of the hand auger borings was placed at the reported location of the former trichloroethene storage container and three additional borings were place lateral to the storage location. Seven soil samples and four soil vapor samples were submitted to the laboratory for analytical testing using EPA Method 8260B (modified) for halogenated volatile organic compounds (HVOCs). The analytical results from soil sampling are summarized below in Table 1.

Table 1: Analytical Results beneath Paint Storage Building: Soil

Sample				EPA Method 8260B (modified) (mg/kg[1])	NWTPH-HCID Gasoline/diesel/heavy oil (mg/kg)
ID	Depth (ft)	Media	Date		
P5S1	4	Soil	11/3/99	--[2]	--
P5S2	8	Soil	11/3/99	ND[3]	<20/<50/<100
P5S3	12	Soil	11/3/99	--	--
P6S1	4	Soil	11/3/99	--	--
P6S2	8	Soil	11/3/99	ND	<20/<50/<100
P6S3	12	Soil	11/3/99	--	--
P7S1	4	Soil	11/3/99	--	--
P7S2	8	Soil	11/3/99	TCE[4]- 0.055	<20/<50/<100
P7S3	12	Soil	11/3/99	--	--

Table 1: Analytical Results beneath Paint Storage Building: Soil					
Sample				EPA Method 8260B (modified) (mg/kg[1])	NWTPH-HCID Gasoline/diesel/heavy oil (mg/kg)
ID	Depth (ft)	Media	Date		
SV-1-4	2.5-4	Soil	3/27/00	ND	--
SV-1-A	2.5	Air	3/27/00	ND	--
SV-2-3.5	2.5.3.5	Soil	3/27/00	ND	--
SV-2-A	2.5	Air	3/27/00	ND	--
SV-3-3.5	2.5-3.5	Soil	3/27/00	ND	--
SV-3-A	2.5	Air	3/27/00	ND	--
SV-4-3.5	2.5-3.5	Soil	3/27/00	ND	--
SV-4-A	2.5	Air	3/27/00	ND	--
MTCA Method A Cleanup Level in soil				TCE – 0.5[5]	100/2000/2000

[1]mg/kg =milligrams per kilogram
[2]-- = not tested
[3]ND = halogenated analytes not detected above standard laboratory detection levels
[4]TCE = trichloroethene
[5]The Cleanup level for TCE was 0.5 mg/kg at the time of the characterization work the current cleanup level is 0.03 mg/kg.

Based on the analytical results presented in Table 1, trichloroethene was detected in one soil sample from the Geoprobe boring P7 at concentrations above standard laboratory detection levels but below MTCA Method A Soil Cleanup levels that were in effect at the time. The hand auger borings soil and soil vapor samples did not exhibit any HVOCs above the standard laboratory detection levels. The results appear to indicate a likely small release to soil in the vicinity of Geoprobe P7. The vertical and lateral extent of the observed trichloroethene impacts in soil appears to be limited to the vicinity of Geoprobe P7. Geoprobe and hand auger test locations and an estimated area of impacted soil are presented in Figure 3. The results of the Geoprobe borings are presented in the Preliminary and Supplemental Phase II ESAs attached in Appendix B and C, respectively.

4.1.2 Former UST Area

Four Geoprobe borings were located within and in the vicinity of the former UST located adjacent to the Shipping and Receiving Shop. A total of four soil samples were submitted to certified laboratories for analytical testing for petroleum hydrocarbon screening or diesel and heavy oil range analysis using NWTPH-HCID and NWTPH-Dx, respectively. The preliminary results from boring P8 indicated that a quantitative analysis using NWTPH-Dx was necessary to evaluate the observed concentrations. Subsequent Geoprobe boring P19 soil sample was analyzed using NWTPH-Dx based on the results of the previous analytical results. The analytical results from soil sampling are summarized below in Table 2.

Table 2: Analytical Results Former UST: Soil					
Sample				WTPH-HCID (gasoline/diesel/heavy oil) (mg/kg[1])	WTPH-Dx diesel/heavy oil (mg/kg)
Sample ID	Date	Depth (ft)	PID (ppm)		
P8S3	11/4/99	8.5	0	<20/DET[2]/DET	983/1,920
P9S3	11/3/99	12	0	<20/<50/<100	--
P10S3	11/4/99	12	NA[3]	<20/<50/<100	--
P19-3	4/17/00	0-3	1.4	--	--
P19-6	4/17/00	3-6	2.4	--	--
P19-9	4/17/00	6-9	2.1	--	<30/<60
MTCA Method A Clean up Level				100/2000/2000	2000/2000

[1]mg/kg= milligrams per kilogram
[2]DET= Analyte was detected above laboratory detection levels but was not quantified
[3]NA= No reading obtained due to technical problems with PID

Based on the analytical results presented in Table 2, diesel and heavy oil range petroleum hydrocarbons were detected at concentrations above standard laboratory detection levels but below MTCA Method A Soil Cleanup levels. The lateral extent of the observed diesel and heavy oil range hydrocarbons in Geoprobe P-8 appeared to be limited to an area within approximately 10 feet of Geoprobe P-8. The vertical extent appears to be limited to a zone from approximately 8 feet to 11 feet below ground surface. Geoprobe test locations and an estimated area of impacted soil are presented in Figure 3. The results of the Geoprobe borings are presented in the Preliminary and Supplemental Phase II ESAs attached in Appendix B and C, respectively.

4.1.3 Former Fuel Oil Tank Area

Four Geoprobe, two hand auger borings and three groundwater monitoring wells were located within and in the vicinity of the former fuel oil tank area located adjacent to the southwest corner of the steel shop. Selected soil samples were submitted to certified laboratories for analytical testing for petroleum hydrocarbon screening using NWTPH-HCID, diesel and heavy oil range hydrocarbon analysis using NWTPH-Dx and/or polynuclear aromatic hydrocarbons (PAHs) analytical testing using EPA Method 8270C. Based on the preliminary results from Geoprobe borings P1 and P3 that indicated that diesel and heavy oil range hydrocarbons were present, a quantitative analysis using NWTPH-Dx was necessary to evaluate the observed concentrations.

Subsequent analytical testing was conducted for diesel and heavy oil range hydrocarbons. Further, based on the presence of diesel and heavy oil, the soil sample with the highest concentrations of diesel and heavy oil was analyzed for PAHs. The borings and monitoring wells were placed to delineate the vertical and lateral extent of the petroleum impacted soil. A summary of soil analytical results is presented in Table 3. Geoprobe test locations and an estimated area of impacted soil are presented in Figure 3.

Table 3 : Analytical Results Suspected Fuel Tank Area: Soil								
Sample				WTPH-HCID (mg/kg) (gasoline/diesel/heavy oil)	WTPH-Dx (mg/kg) diesel/heavy oil	EPA GC/MS SIM (PAHs) (mg/kg)	Interim TPH Methods	
Sample ID	Date	Depth (ft)	PID (ppm)				VPH	EPH
P1S4	11/3/99	16	35	N D/DET/DET	**10,000/4010**	Acenaphthene-6.27 Acenaphtylene-1.21 Anthracene-6.94 *Benzo (a) anthracene-4.62 *Benzo (a) pyrene-1.53 *Benzo (b) fluoranthene-0.745 *Benzo (ghi) perylene-0.705 *Benzo (k) fluoranthene-ND *Chrysene-7.01 *Dibenz (a,h) anthracene-ND Fluoranthene-2.86 Fluorene-7.88 *Indeno (1,2,3-cd) pyrene-ND Napthalene-11.8 Phenanthrene-28.2 Pyrene-11.3 (*=carcinogenic)	--	--
P1S6	11/3/99	22	7	ND/ND/ND	--	--	--	--
P2S3	11/3/99	12	0	ND/ND/ND	--	--	--	--
P3S3	11/3/99	12	0	ND/ND/DET	134/210	--	--	--
P20-3	4/17/00	0-3	1.3	--	--	--	--	--
P20-6	4/17/00	3-6	No sample					
P20-9	4/17/00	6-9	3.7	--	--	--		

Table 3 : Analytical Results Suspected Fuel Tank Area: Soil								
Sample				WTPH-HCID (mg/kg) (gasoline/diesel/heavy oil)	WTPH-Dx (mg/kg) diesel/heavy oil	EPA GC/MS SIM (PAHs) (mg/kg)	Interim TPH Methods	
Sample ID	Date	Depth (ft)	PID (ppm)				VPH	EPH
P20-12	4/17/00	9-12	41.3	--	--	Acenaphthene-7.9 Acenaphtylene-ND Anthracene-7.1 *Benzo (a) anthracene-5.1 *Benzo (a) pyrene-1.4 *Benzo (b) fluoranthene-<2.0 *Benzo (ghi) perylene-<2.0 *Benzo (k) fluoranthene-<2.0 *Chrysene-8.0 *Dibenz (a,h) anthracene-ND Fluoranthene-2.1 Fluorene-12 *Indeno (1,2,3-cd) pyrene-ND Naphthalene-15 2-Methylnaphthalene-100 Phenanthrene-33 Pyrene-11 (*=carcinogenic)	Aliphatic C5-C6: ND Aliphatic C6-C8: 5.9 Aliphatic C8-C10: ND Aliphatic C10-C12: 110 Total Aliphatic: 120 Aromatic C8-C10: 40 Aromatic C10-C12: 250 Aromatic C12-C13: 600 Total Aromatic: 890 MTBE: ND Benzene: ND Toluene: ND Ethylbenzene: ND m, p-Xylene: ND o-Xylene: 0.68	Aliphatic C10-C12: 69 Aliphatic C12-C16: 870 Aliphatic C16-C18: 400 Aliphatic C18-C21: 370 Aliphatic C21-C28: 690 Aliphatic C28-C36: 760 Total Aliphatic: 3200 Aromatic C10-C12: 85 Aromatic C12-C-16: 880 Aromatic C16-C18: 440 Aromatic C18-C21: 1600 Aromatic C21-C28: 790 Aromatic C28-C36: 740 Total Aromatic: 4500
P20-15	4/17/00	12-15	15.3	--	<29/<58	--	--	--
HA1-1	4/17/00	0-1	21.3	--	--	--	--	--
HA1-4	4/17/00	3-4	5.0	--	75/500	--	--	--
HA2-5	4/17/00	4-5	5.4	--	<38/<76	--	--	--
MW1-10	8/8/00	8.5-10	0.8	--	ND/ND	ND	--	
MW2-5	8/8/00	3.5.-5	3.9	--	ND/ND	ND	--	
MW3-5	8/8/00	3.5-5	4.8	--	ND/ND	ND	--	
MTCA Industrial Clean up Level				100/2000/2000	2000/2000			

Notes:
All results in milligrams per kilogram (mg/kg)
ND = not detected at the laboratory reporting level
DET= analyte noted detected above laboratory detection levels.
-- = not tested

Based on the analytical results presented in Table 3, diesel and heavy oil range petroleum hydrocarbons were detected at concentrations above MTCA Method A Soil Cleanup levels in an area south of the southwest corner of the steel shop. The lateral extent of the observed diesel and heavy oil range hydrocarbons in Geoprobe Borings P-1 and P20 appear to be limited to an area just south of, and beneath the southwest corner of, the steel shop. Borings placed approximately 10 to 15 feet lateral to the east, south and west did not exhibit concentrations of diesel or heavy oil hydrocarbons above either MTCA Cleanup levels or standard laboratory detection levels. The vertical extent of the release appears to be limited to a zone from approximately 8 feet to approximately 15 feet below ground surface. Geoprobe test locations and an estimated area of impacted soil are presented in Figure 3. The results of the Geoprobe and hand auger borings, and groundwater monitoring wells are presented in the Preliminary and Supplemental Phase II ESAs, and the Groundwater installation Report attached in Appendix B, C, and D respectively.

4.2 Groundwater Conditions

Groundwater was encountered during environmental assessment activities from approximately 7 to 9 feet below ground surface in the vicinity of the Paint Storage Building to 12 to 13 feet below ground surface in the vicinity of the Former Fuel Oil Tanks. Based on the results of ADAPT's subsurface characterization groundwater appears to be impacted in two locations; beneath the Paint Storage Building, and beneath the former Fuel Oil Tank Area. Analytical results from groundwater samples collected from the former UST area did not exhibit petroleum hydrocarbons above standard laboratory detection levels. The following sections provide a brief summary of findings at each of the three areas with suspected groundwater impacts.

4.2.1 Paint Storage Building

Based on groundwater analytical results from subsurface characterization, and summarized in Table 4 below the groundwater beneath the Paint Storage Building has been impacted with TCE. The Preliminary Phase II results identified TCE in groundwater, adjacent to the paint storage building, at 8.38 parts per billion (ppb), which is slightly above the MTCA Method A Cleanup Level of 5.0 ppb. Analytical results from the Supplemental Phase II documented TCE concentrations in groundwater, approximately 50 feet downgradient to the east of the paint storage building, at 4.9 ppb, which is below the Method A cleanup level of 5.0 ppb. The location of the 4.9 ppb reading is approximately 150 to 200 feet from the eastern property line (see Figure 2). Based on the results it appears that the extent of TCE impacted groundwater above cleanup levels does not appear to migrate off-site.

Table 4 : Analytical Results Paint Storage Building: Groundwater				
Sample			WTPH-HCID (gasoline/diesel/heavy oil) (mg/L[1])	EPA 8021B (µg/L[2])
Sample ID	Date	Depth (ft)		
P6W1	11/3/99	8.4-9	ND[3]/ND/ND	TCE[4] 8.38
P17-W	4/17/00	8-12	--[5]	TCE 4.9
P18-W	4/17/00	7-11	--	TCE 0.27
MTCA Method A Clean up Level			100/2000/2000	5.0

[1]mg/L = milligrams per Liter
[2]µg/L = micrograms per Liter
[3]ND = Listed analyte not detected above standard laboratory reporting limits.
[4]TCE = Trichloroethene
[5]-- = listed sample not tested for listed analytes.

4.2.2 Former UST Area

Based on groundwater analytical data, and observed petroleum hydrocarbon concentrations in soil collected from Geoprobe borings within and lateral to the former UST location, groundwater does not appear to be impacted with TPH compounds. A groundwater sample collected from the downgradient direction (east) of the former UST location did not exhibit TPH concentrations above laboratory detection levels. Further, the diesel and heavy oil concentrations (983 ppm for diesel, and 1,920 ppm for heavy oil) exhibited in the soil sample from Geoprobe boring P8 are below MTCA Unrestricted Soil Cleanup Levels of 2000 ppm which is considered protective of groundwater.

4.2.3 Former Fuel Oil Tank Area

Based on the results of the Preliminary and Supplemental Phase II ESAs three groundwater monitoring wells were installed at the Former Fuel Oil Tank Area. Two wells were completed east of the retaining wall in the assumed downgradient direction and a third was installed west of the suspect area in the assumed upgradient direction. The groundwater monitoring wells were sampled for a total of four quarters and the collected groundwater sample was analyzed for diesel and heavy oil hydrocarbons using NWTPH-Dx. The initial quarter samples were analyzed for PAHs, however based on the analytical results no further PAH testing was conducted. Table 5 summarizes the analytical results from the quarterly groundwater sampling program conducted over four consecutive quarters.

Table 5 : Analytical Results Former Fuel Oil Tank Area: Groundwater				
Sample		NWTPH-Dx (mg/L)		EPA 8270C PAHs (µg/L)
Sample ID	Date	Diesel	Heavy Oil	
MW1	8/10/00	<0.25	<0.50	ND
	11/15/00	<0.25	<0.50	--
	2/23/01	<0.25	<0.50	--
	6/5/01	<0.25	<0.50	--
MW2	8/10/00	<0.25	<0.50	ND
	11/15/00	<0.25	<0.50	--
	2/23/01	<0.25	<0.50	--
	6/5/01	<0.25	<0.50	--
MW3	8/10/00	<0.25	<0.50	ND
	11/15/00	<0.25	<0.50	--
	2/23/01	<0.25	<0.50	--
	6/5/01	<0.25	<0.50	--
MW4 (Duplicate of MW2)	8/10/00	<0.25	<0.50	ND
	11/15/00	<0.25	<0.50	--
	2/23/01	<0.25	<0.50	--
	6/5/01	<0.25	<0.50	--
MTCA Method "A" Residential Clean up Level		1.0		Various

Notes:
All results in micrograms per liter (µg/l)
< = not detected at the given laboratory reporting limit.

Analytical results from the Phase II ESAs appeared to indicate that the groundwater beneath the former fuel oil tanks had been impacted with diesel and heavy oil range hydrocarbons. However, the analytical results of the quarterly groundwater monitoring program indicates that the lateral extent of the impacted groundwater is limited to the former fuel oil tank area to the west of the retaining wall and likely partially beneath the existing Steel shop building. TPH was not exhibited in groundwater monitoring wells located approximately 10 feet from the retaining wall in a downgradient direction. The four Quarterly Groundwater Quality Monitoring Reports are presented in Appendix C and D.

5.0 GEOLOGY AND HYDROGEOLOGY

5.1 Subsurface Soil Conditions

For the purposes of site evaluation, ADAPT advanced 20 Geoprobe soil borings, four hand auger borings, and three shallow hollow stem auger borings which were converted to groundwater monitoring wells. Based on data collected from the probes and borings, it appears the subsurface soil conditions generally consist of moist, brown to dark brown medium to coarse sand with gravel, and iron waste, concrete and brick fragments to depths ranging from the approximately 4 to 13

feet below ground surface (bgs) which was interpreted as fill material. Underlying the fill material was a moist, brown silty to medium sand to total depth of most of the borings. A hard silt/clay layer was encountered in several of the borings in the southern portion of the site and in the former fuel oil tank area at depths of between approximately 11 to 13 feet bgs to the total depth of the borings at approximately 12 to 22 feet bgs.

5.2 Groundwater Conditions

Groundwater was encountered between approximately 5 and 13 feet bgs on the central and northern portions of the site. Groundwater was not encountered in the southern portion (fill area) to depths of approximately 16 feet bgs. In the Geoprobe borings, groundwater was encountered at approximately 12 to 13 feet bgs in the former UST area and the Former Fuel Oil Tank area west of the nine foot high retaining wall and at approximately 4 to 5 feet bgs to the east of the retaining wall. Groundwater was encountered at approximately 7 to 9 feet bgs in the Paint Storage Building area.

Three groundwater monitoring wells were installed in the vicinity of the former fuel oil tank area to obtain representative groundwater flow direction data. Based on these data, it appears that groundwater flow direction across the former fuel tank site is generally to the east-southeast. Based on observed groundwater surface elevations, MW-2 appears to be the most downgradient well and MW-1 is considered upgradient. In addition, based on the groundwater flow direction at the former fuel oil tank area and the general level grading on the site it is estimated that the groundwater generally flows east across the remaining portions of the site.

A review of topographic maps suggests that the general direction of near-surface groundwater flow in the study area is towards the Snohomish River, the nearest surface water, approximately one-half mile to the east.

6.0 REMEDIAL ALTERNATIVES

6.1 Former Fuel Oil Tank Area

Based on the analytical results soil and groundwater appear to be impacted with diesel and heavy oil range hydrocarbons, and soil with PAHs. The impacted area is located between a nine (9) foot high concrete retaining wall, a wood framed shed, and the southeast corner of the Steel Shop. The total aerial extent appears to be approximately 20 to 25 feet long by 10 to 15 feet wide. The area roughly corresponds to the area between the buildings and retaining wall. Based on the limited aerial extent and the depth approximately 8 to 15 feet bgs remedial alternatives are limited. Groundwater monitoring indicates that the impacted soil and groundwater do not appear to be migrating off-site and based on the age (tanks were likely removed prior to 1970) of the release the impacted area is likely in a stable condition. Potential remedial alternatives include soil excavation, or accelerated natural attenuation using addition of oxygen release compound. At this time based on the limited impacted area and the considerable technical and financial efforts which would be required to excavate the soil and prevent the collapse of the retaining wall or in use buildings soil excavation is not considered a viable option. In the future if site development were to include removal of the existing building, or repairs or replacement is needed for the retaining wall, any petroleum impacted soil which is disturbed would be excavated and disposed of accordingly during the redevelopment or repair work.

6.2 Paint Storage Building

Analytical data collected to date appears to indicate that the extent of the impacted area from TCE is limited to the vicinity of the storage building. At this time the current operations on site do not use or store chlorinated solvents on the site. In addition, based on the low concentrations of TCE in the soil beneath the storage building it is unlikely that additional releases to the soil or groundwater would occur. Based on the limited extent and the low concentrations natural attenuation is the suggested remedial alternative for the TCE impact.

7.0 SOIL AND GROUNDWATER CLEANUP LEVELS

In order to justify leaving the diesel and heavy oil range petroleum impacted soil and groundwater beneath the former fuel oil tank area and the TCE impacted soil and groundwater beneath paint storage building the ADAPT conducted three and four phase Partitioning Modeling using Ecology's 3 and 4-Phase Partitioning Model spreadsheet. In addition, to evaluate the potential for vapor intrusion and inhalation into buildings from the observed contaminants ADAPT used a vapor diffusion model developed by Johnson and Ettinger (US Environmental Protection Agency 1997).

7.1 Appropriate Cleanup Levels

7.1.1 Petroleum Hydrocarbons

At the time of the initial site remedial investigation and groundwater monitoring program, remedial actions were being conducted under Washington Department of Ecology's Interim TPH policy guidance documents. ADAPT had one soil and one groundwater sample from the most impacted area beneath the former fuel oil tank area analyzed using Ecology's Interim Policy EPH and VPH methods. Laboratory reports are presented in Appendix F. However, based on the current MTCA rules, soil and groundwater cleanup levels can be established using either the Interim TPH policy or the new MTCA Cleanup levels. Based on the observed empirical sampling data collected to date and site conditions, it was decided to use the new MTCA Method B Cleanup levels to show that current levels of petroleum hydrocarbons are protective of groundwater, direct soil contact and vapor intrusion. As such ADAPT used the Ecology Three and Four Phase Partitioning models and empirical data to show that the current concentrations of petroleum hydrocarbons are acceptable for site closure.

7.1.2 Halogenated Volatile Organic Compounds

The original characterization work was conducted in October of 1999 when the MTCA Industrial soil cleanup levels for TCE was 0.5 ppm. Subsequent changes in the MTCA Cleanup levels lowered the concentration to 0.03 ppm. At the time of the original work the soil was considered not impacted above cleanup levels as such no additional work such as remediation was recommended. The current MTCA rules allow the use of either the new cleanup levels or the levels in effect at the time of the work which ever is less stringent. Therefore based on the MTCA rules the cleanup levels for TCE at the site are considered to be the cleanup levels in effect in 1999.

7.2 Exposure Pathways

7.2.1 Direct Contact

Because contaminated soils appear to be at depths greater than 8 feet below existing grade, the possibility of dermal or other direct contact of impacted soils is low. However, it is conceivable that in the course of possible future site redevelopment, site personnel could come into contact with contaminated soils, or those subsurface soils could become disturbed or otherwise exposed. In order to evaluate this possibility, Soil Cleanup levels for Soil Direct Contact Pathway calculations as per Ecology's Three and Four phase partitioning model were performed. The spreadsheet calculations are provided in Appendix G.

Former Fuel Oil Tank Area: For purposes of these calculations, soil sample P20-12 was used. The selected soil sample had been analyzed using the EPH/VPH method in accordance with the then Interim TPH Policy. The default site-specific hydrogeological data was used to calculate the soil direct contact cleanup levels. Spreadsheets with the input and output parameters are presented in Appendix H and summarized in Table 6 below:

Table 6: Modeling Results: Soil Direct Contact for Former Fuel Tank Area Soil Sample P20-12

Exposure Pathway		Pass or Fail?	Hazard Index	Risk
Soil Direct Contact	Unrestricted Land use	Fail	3.13E+00	2.59E-05
	Industrial Land use	Pass	2.56E-01	6.44E-06
Method B Target Soil TPH Cleanup Levels			<1.0	1E-05

Based on calculation results in Table 6, the current site soil conditions, pass for industrial land use but fail for unrestricted land use with regards to direct contact. The current and foreseeable site use and zoning delineation is industrial/manufacturing activities and is unlikely to be used for residential or other development which would require unrestricted land use soil cleanup levels. Further if future site development is planned and implemented impacted soil would likely be excavated during any development action.

Paint Storage Building: For purposes of these calculations, P7-S2 was used because it was the only soil sample to exhibit concentrations of TCE above laboratory detection levels. The default values were used. Reference dose for TCE was not available from the CLARC Tables. The referenced dose used was obtained from a U.S. EPA Region III Risk Base Table dated 4/13/2000. Spreadsheets with the input and output parameters are presented in Appendix G and summarized in Table 7 below:

Table 7: Modeling Results: Soil Direct Contact for Paint Storage Building: Soil Sample P7-S2

Exposure Pathway		Pass or Fail?	Hazard quotient		Carcinogenic Risk	
			Ingestion	Ingestion & Dermal	Ingestion	Ingestion & Dermal
Soil Direct Contact	Unrestricted Land use Method B	Pass	1.146E-04	1.398E-04	6.050E-10	7.381E-10
	Industrial Land use Method C	Pass	2.619E-06	9.167E-06	4.610E-11	1.613E-10
Method B Target Soil TPH Cleanup Levels			1.0		1E-06	

The modeling results presented in Table 7 indicate that the current site soil conditions for TCE pass the hazard quotient and carcinogenic risk for direct contact for both unrestricted and industrial land use.

7.2.2 Vapor Inhalation

The TPH contaminants identified in soil beneath the former fuel oil tank area are relatively non-volatile. However, there is a potential that volatilization and accumulation of these contaminants into indoor space could represent a health risk. In order to evaluate this risk, ADAPT used a vapor diffusion model developed by Johnson and Ettinger (US Environmental Protection Agency 1997). The Johnson and Ettinger model provides an estimation of the indoor air concentration of a particular analyte, modified by such factors as chemical properties of the analyte, thickness of the floor slab, saturated and unsaturated zone soil properties, and other considerations. Based on the estimated analyte concentration in air, an incremental exposure risk can then be calculated.

For purposes of these calculations, it was assumed that the slab thickness was 60 centimeters (2-feet) (based on anecdotal information), depth to groundwater is 410 cm (13.5 feet), the sand fill soils were relatively homogeneous, average air temperature is 10° C (50° F), with an exposure frequency of 250 days per year (industrial use of 5 days a week for 50 weeks). Incremental risk was calculated for each of the carcinogenic PAHs, naphthalene and TCE detected in groundwater and soil. Spreadsheets with the input and output parameters are presented in Appendix H and summarized in Table 8 below:

Table 8 – Summary Vapor Intrusion Model Results

Analyte[1]	Concentration in borings (ppb)	Calculated Incremental risk Groundwater	Concentration in Soil (ppm)	Calculated Incremental risk Soil
Benzo(a)anthracene	5.6	8.2E-10	5.1	5.0E-10
Benzo(a)pyrene	1.6	8.8E-10	1.4	2.0E-10
Benzo(b)fluoranthene	0.77	8.4E-10	ND[2]	NA[3]
Chrysene	8.8	8.0E-11	8.0	8.2E-11
Naphthalene	60	8.5E-05[4]	15.0	5.6E-03
trichloroethene	8.38	5.7E-08	.055	5.7E-08
Method B Action Levels		1.0E-06		1.0E-06

Notes:
Calculated incremental risk is dimensionless
[1]PAH concentrations from groundwater sample P20-W collected from Geoprobe Boring P20. PAHs were not exhibited in the installed groundwater wells.
[1]Trichloroethene concentration from groundwater sample P6-W from Geoprobe boring P6.
[2]ND = Analyte not detected above laboratory detection/reporting levels
[3]NA = Not applicable not detected in soil.
[4]Napthalene is non-carcinogenic

According to the model, none of the carcinogenic PAHs, or trichloroethene detected in groundwater are present in sufficient concentration such that they pose an unacceptable health risk via the vapor inhalation pathway, i.e. a cancer risk greater than 1.0E-06.

7.2.3 Impacts to Surface Water

The nearest surface water body is the Snohomish River, approximately one-half mile to the east of the site. Based on the analytical results observed in the downgradient wells indicating that petroleum hydrocarbons are not migrating off-site, it is unlikely that contaminants originating from the subject property would reach the Snohomish River.

7.2.4 Protection of Potable Groundwater

Current MTCA Cleanup regulations require that contamination levels in soil be protective of potable groundwater. ADAPT used the State three and four phase partitioning model to evaluate site cleanup and remediation levels. The site is an industrial facility and is likely to remain industrial in the foreseeable future. In addition there are no known drinking water wells either public or private within one mile of the site and groundwater is unlikely to be used for drinking supply in the foreseeable future. Based on the current and expected future site use, the partitioning model was run for Method B protective levels. The model was run using the default parameters with site specific soil concentrations. The modeling results are summarized in Table 9 below.

Table 9: Partitioning Model Results: Method B Soil Cleanup Levels Protective of Potable Groundwater

Location	Chemical of Concern	Soil Concentration	Predicted Groundwater Concentration	Actual Groundwater Concentration	Calculated Hazard Index	Cancer Risk
Former Fuel Oil Tank Area	TPH-Diesel and Heavy oil	7952.4 mg/kg	150 µg/L	<25 µg/L -Diesel <50 µg/L heavy oil	0.327	3.98E-09
Paint Storage Building	Trichloroethene	0.055 mg/kg	3.9 µg/L	4.9 µg/L	0.082	9.878E-07
MTCA Model Target Cleanup levels or threshold criteria "Method B"			TPH-500 µg/L TCE-5.0 µg/L	TPH-500 µg/L TCE-5.0 µg/L	1.0	1 x 10E-06

Former Fuel Oil Tank Area: Based on modeling results presented in Table 9, the current concentration of TPH in soil is protective of groundwater. In addition, based on the model results, the predicted concentration of TPH in a groundwater well would be 150 micrograms per liter. Further, the results of actual groundwater data collected from two downgradient wells indicate that there appears to be no TPH impacts migrating off-site. Therefore based on the partitioning model results and the four quarterly groundwater monitoring results current site conditions appear to be protective of potable groundwater.

Paint Storage Building: Based on the partitioning model results presented in Table 9, and the observed concentration in groundwater, the current soil concentration of 0.055 mg/kg appears to be protective of groundwater. The model estimated a concentration of TCE in groundwater of 3.9 µg/L and actual concentration was documented at 4.9 µg/L approximately 50 feet downgradient. The empirical data (4.9 µg/L) from the Geoprobe boring located downgradient of the release area indicates that the groundwater impacts are not migrating off-site.

Former UST: Based on the observed soil concentration for diesel and heavy oil range hydrocarbons, the current soil concentrations is below the MTCA Unrestricted Cleanup levels of 2000 mg/kg and therefore is considered protective of potable groundwater.

8.0 CONCLUSIONS

Probably as a result of undocumented releases from the former fuel oil tanks, and the paint storage building site soils and groundwater contain TPH and TCE above MTCA Method A

cleanup standards. However, the observed heavy oil hydrocarbons and TCE do not appear to be impacting the groundwater downgradient of the subject property above MTCA Method A cleanup standards.

Based on the information summarized below, ADAPT believes the subject property qualifies for a "no further action" (NFA) letter under the criteria defined by MTCA. We understand that restrictive covenants as dictated by Ecology may be an appropriate condition for the NFA:

- According to empirical data collected from four quarterly sampling events, in the area of the former fuel oil tanks, the groundwater migrating off-site meets MTCA Method A Cleanup levels for TPH and PAHs. Based on these results, it appears site groundwater conditions meet requirements for site closure.

- According to empirical data collected during the Preliminary and Supplemental Phase II ESA work in the area of the paint storage building, concentrations of TCE in soil and groundwater are below MTCA Method B Cleanup levels.

- According to empirical data collected during the Preliminary and Supplemental Phase II ESA work in the area of the Former UST, concentrations of diesel and heavy oil in soil and groundwater are below MTCA Method A Cleanup levels.

- Using the Johnson and Ettinger vapor intrusion model it appears that residual PAHs concentrations in on-site soil and groundwater do not pose an unacceptable risk to workers in the existing or proposed future site structures.

- Using Ecology's Worksheet for Calculating Soil Cleanup Levels for Unrestricted & Industrial Land Use for individual chemicals the current observed concentration of TCE and TPH in soil meets current MTCA Method B cleanup levels and is protective of groundwater.

- Based on a review of records at the Washington Department of Ecology, it appears the closest possible sensitive receptor is the Snohomish River, located approximately 1/2 mile to the east of the site. Based on the attenuation observed on site, the likelihood that this receptor could be affected by the subject property appears to be low. No wetlands or drinking water wells were reported within approximately one mile of the subject property. The City of Everett provides water to the subject property and surrounding area. The water is obtained from surface sources collected approximately 10 to 20 miles east. It is unlikely the shallow aquifer below the site would be developed for beneficial uses.

- The site as well as adjacent and downgradient properties are currently used and zoned for industrial purposes. It is unlikely the site or downgradient properties would be used for residential purposes in the foreseeable future, further mitigating concern about residual TPH, PAHs or HVOCs.

- Proposed restrictive covenants would likely include requirement to excavate any heavy oil impacted soil during future redevelopment of the site, restriction on use of groundwater from the site, and deed restrictions.

9.0 LIMITATIONS

This report has been prepared to aid in the evaluation of the site and can be relied upon by the Acrowood Corporation and their agents. Our conclusions and recommendations have been prepared in accordance with generally accepted environmental principles and practices. We make no other warranty, neither express nor implied. Our conclusions are based on results of field explorations in a limited portion of the site, and on our interpretation of analytical results. If conditions are encountered that appear different from those described in this report, we must be notified so we may review and verify or modify our recommendations.

ADAPT appreciates the opportunity to work with you on this project. If you have any questions, or if we can be of further assistance to you, please contact us at (206) 654-7045.

Respectfully Submitted,

LSI ADAPT, Inc.

Keith A. Ross, P.G.
Senior Hydrogeologist

Daryl S. Petrarca, R.E.A.
Vice President Environmental Services
Senior Reviewer

KAR-DSP/kar

10.0 REFERENCES

Phase I Environmental Site Assessment, ADAPT Engineering, Inc., August 20, 1999

Preliminary Phase II Environmental Site Assessment, ADAPT Engineering, Inc., November 30, 1999

Supplemental Phase II Environmental Site Assessment, ADAPT Engineering, Inc., May 23, 2000

Groundwater Monitoring Well Installation and 1st Quarter Groundwater Quality Monitoring Report, ADAPT Engineering, Inc., August 29, 2000

2nd Quarter Groundwater Quality Monitoring Report, ADAPT Engineering, Inc., December 6, 2000

3rd Quarter Groundwater Quality Monitoring Report, LSI ADAPT, Inc., March 14, 2001

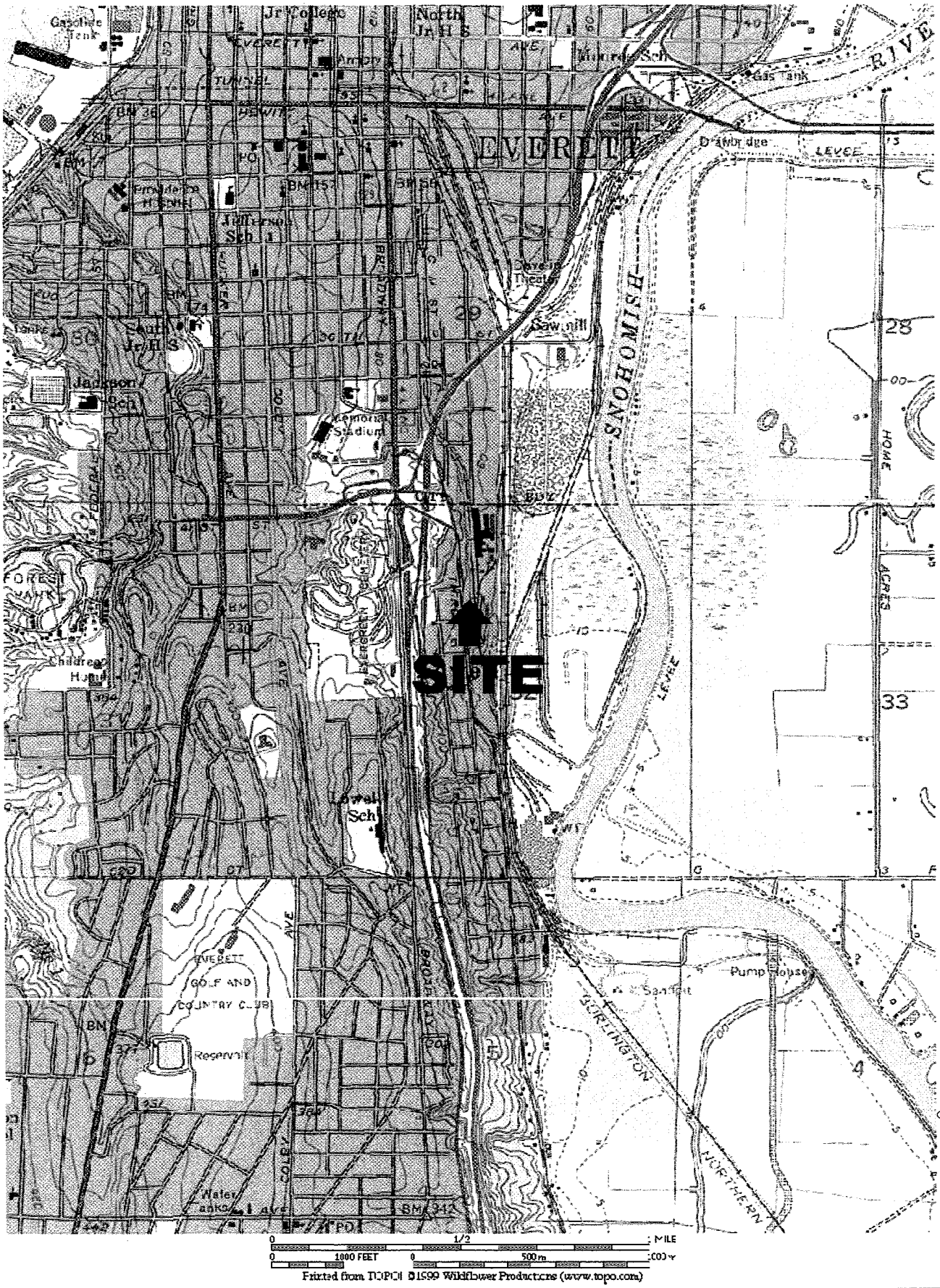
4th Quarter Groundwater Quality Monitoring Report, LSI ADAPT, Inc., July 2, 2001

Workbook Tools for Calculating Soil and Ground Water Cleanup Levels under the Model Toxics Control Act, User's Guide. Washington State Department of Ecology Toxics Cleanup Program, August 2001.

Users Guide for the Johnson and Ettinger (1991) Model for Subsurface Vapor Intrusion into Buildings, US Environmental Protection Agency, September 1997.

APPENDIX A

FIGURES



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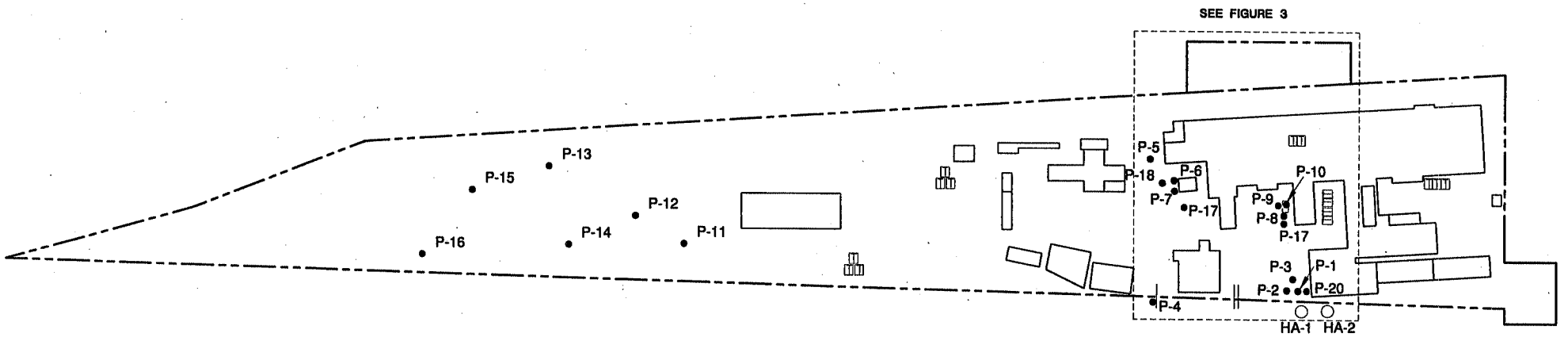
LSI ADAPT, INC.

800 Maynard Avenue S., Suite 403
Seattle, Washington 98134

Ph : 206.654.7045 Fax : 206.654.7048

FIGURE 1 - Location/Topographic Map

Project : Acrowood Everett
Location : 4425 3rd Avenue
Everett, Washington 98206
Client : Acrowood Corporation
Date : 12/07/01 **Job #** : S-WA-99-2877-3



NOT TO SCALE

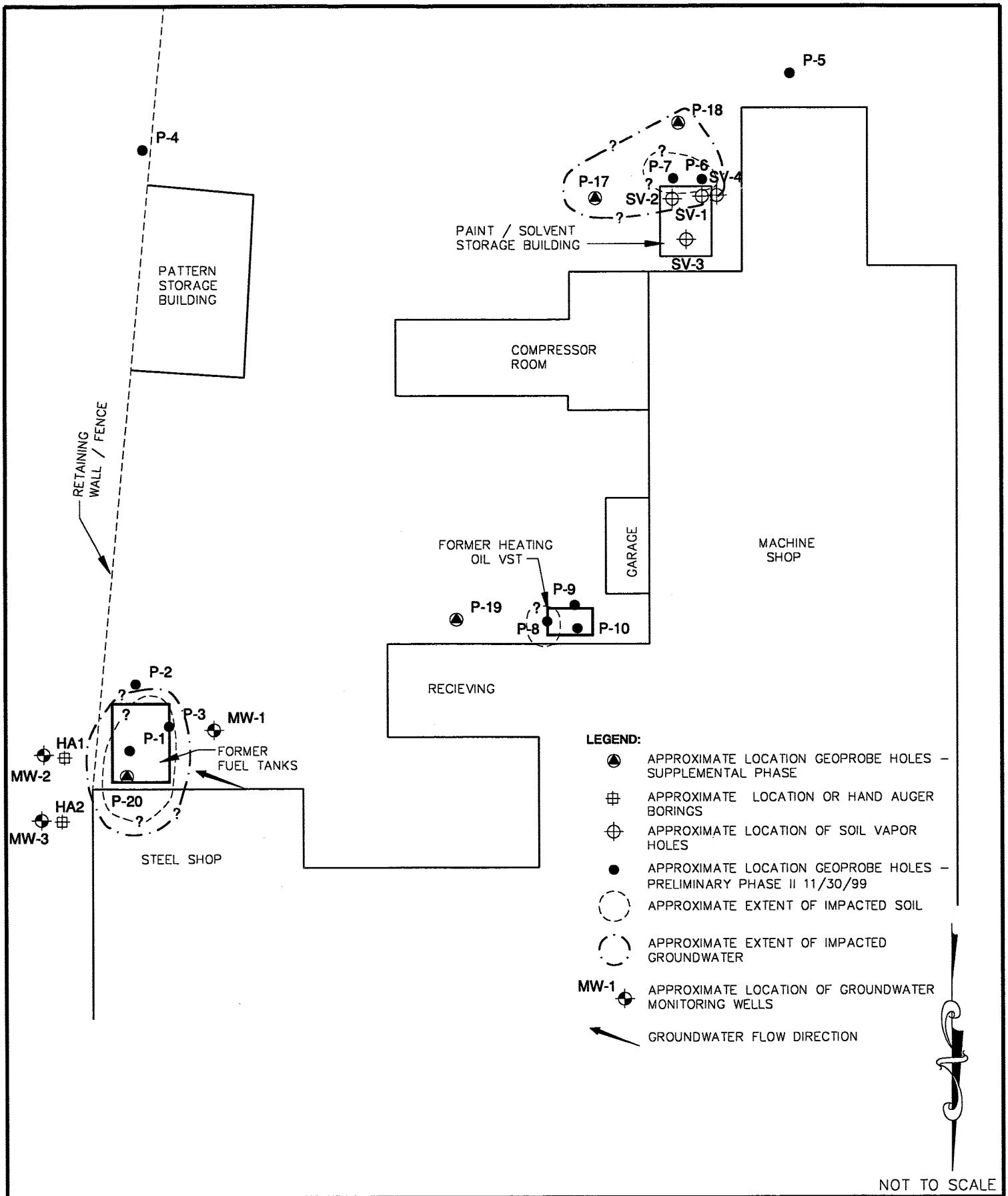
LSI ADAPT, INC.

800 Maynard Avenue S., Suite 403
Seattle, Washington 98134
Ph : 206.654.7045 Fax : 206.654.7048

FIGURE 2 - Site Plan

Project : Acrowood Everett
Location : 4425 3rd Avenue
Everett, Washington 98206
Client : Acrowood Corporation

) : 01 ob # : 99-2



LSI ADAPT, INC.
800 Maynard Avenue S., Suite 403
Seattle, Washington 98134

Ph : 206.654.7045 Fax : 206.654.7048

FIGURE 3 - Site Plan Detail

Project : Acrowood Everett
Location : 4425 3rd Avenue
Everett, Washington 98206
Client : Acrowood Corporation
Date : 12/07/01 **Job #** : S-WA-99-2877-3

APPENDIX B

ADAPT PHASE I ENVIRONMENTAL SITE ASSESSMENT (August 20, 1999)

ADaPT Engineering, Inc.
800 Maynard Avenue South, Suite 403
Seattle, Washington 98134

Tel (206) 654-7045
Fax (206) 654-7048

August 20, 1999
ADaPT Job No. WA99-2582

Acrowood Corporation
P.O. Box 1028
Everett, Washington 98206

Attention: Mr. Farhang Javid

Subject: Phase I Environmental Site Assessment
Acrowood Corporation Facility
4425 South Third Avenue
Everett, Washington

Dear Mr. Javid:

ADaPT Engineering, Inc. (ADaPT) is pleased to present the results of our Phase I Environmental Site Assessment for the above-referenced property. This assessment was performed in general accordance with ASTM Practice E 1527-97. Written authorization to perform this project was given by Mr. Farhang Javid of Acrowood Corporation (Acrowood) on July 29, 1999.

ADaPT appreciates the opportunity to be of service to you on this project. Should you have any questions concerning this report, or if we can assist you in any way, please feel free to contact us at (206) 654-7045.

Respectfully Submitted,

ADaPT Engineering, Inc.

Keith A. Ross, P.G.
Senior Project Manager

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Appendix D: Waste Notification Documents (1993-1998)
Appendix E: EPA Documents on Transformers

1.0 EXECUTIVE SUMMARY

ADaPT is pleased to present the results of the Phase I Environmental Site Assessment (Phase I) for the parcels associated with Acrowood Corporation Manufacturing Facility located at 4425 South Third Avenue in Everett, Washington. Following is a summary of the Phase I:

Site Description: The subject site consists of six (6) separate tax parcels that cover a reported 20.84 acres (Tax Assessor). A portion of the subject parcels are operated as a manufacturing facility for chipping and sorting equipment for the wood pulp industry. The property is improved with a total of thirteen (13) structures, including an office building, a machine shop and foundry, several pattern storage buildings, and a general storage building. The balance of the non-building areas of the property are used for a parking lot, miscellaneous parts and old equipment storage or are undeveloped and covered with vegetation.

The main building is used for the manufacturing of chipping and sorting equipment. The owner stated that all machines used in the manufacturing process uses lubricating oil and coolants stored in reservoirs located under the machines. Unused oils and chemicals are stored in original 55-gallon drums on dispenser racks located in the main building.

Site History: Historical research (see Section 6.0) revealed that the site has been used as a iron and metal foundry since 1913. Historical information indicated that Sumner Iron Works used the subject site for metal and iron casting and molding from 1913 to approximately the early 1970s. The site was occupied by Black-Clawson-Sumner as a metal fabrication facility until 1984. The current occupant Acrowood has operated the site for metal fabrication of forestry industry equipment since 1984.

Tax assessment records indicated that the main building and several storage buildings were constructed in 1913. Additional buildings were constructed in the 1940s through the 1970s. The office/laboratory building was constructed in 1970.

Regulatory Agency Information: A review of regulatory agency lists and databases (see Section 8.0) revealed no CERCLIS, NPL, Landfills, ERNS, USTs or RCRA TSD CORRACTS facilities within designated distances of the site. One LUST site was located within one-half mile of the subject site, and five (5) Confirmed or Suspected Contaminated Sites (C&SCS) were located within one mile of the property. However, based upon separation distance and/or location relative to assumed groundwater gradient direction, none of the listed sites appears to be tributary to the subject parcel.

Site Reconnaissance : ADaPT representatives conducted a reconnaissance of the subject site on August 5, 1999. The parcels include an office/laboratory building and associated parking lot, a main large building reportedly 122,092 square feet, and eleven (11) other buildings used for storage, research and development, or for carpentry. The southern parcels are undeveloped

and were covered with mature trees and bushes.

The main building contains several different work areas used for the fabrication of wood pulp chipping and sorting equipment. The manufacturing process requires several different machines which use lubricating and cutting oils. These oils are stored in the machine. Some staining was observed beneath and adjacent to many of the machines. According to Acrowood personnel, the used oils are stored in an AST prior to transport off site by an approved transporter. Other chemicals used on site include toluene, coolants, paints, hydraulic oils and thinners. The oils and coolant are stored and distributed from 55-gallon drums. Some staining was noted beneath the dispenser racks on the concrete slab.

Toluene is used as a solvent and thinner and is stored in the paint storage building. According to Acrowood personnel prior to 1995 chlorinated solvents and methyl ethyl ketone were also used for parts cleaning in the painting area. At the time of the site visit no chlorinated solvents were observed on the subject site.

The remaining buildings are generally used for storage of equipment and parts, old patterns or molds, or for testing and demonstration of newly developed equipment. No chemicals were observed in the other buildings with the exception of a 55-gallon drum of lubrication oil in a garage. No staining was observed beneath the drum on the dirt floor.

Ten on site transformers were observed adjacent and within the main building. According to site personnel nine of the transformers are not used and a single small transformer was working. At the time of the site visit no wires were observed connected to nine of the transformers. No staining or leaks were observed on the soil beneath the transformers. Only one transformer was labeled "Non PCB". Documents provided by Acrowood appear to indicate that the transformers manufactured by General Electric do not have PCB contaminated oils.

The eastern edge of the subject site is moderately sloped and the upper 3 to 4 feet appears to contain waste iron, blasting and casting sand, and slag apparently from the former foundry operations at the subject site.

Stained soil and metal filings were observed at a drainage pipe located on the eastern edge of the site that reportedly drains the building roof area and runs through the main building

During the site visit Acrowood personnel indicated that an underground storage tank (UST) had been removed from the east side of the main building. At the time of the site visit no surface evidence was observed indicating the presence of a UST on site.

The site reconnaissance (see Section 7.1) did not reveal the presence of the following recognized environmental conditions on the subject parcels; lagoons; landfills; pipelines; hazardous waste disposal areas including sumps, pits, ponds, drums; dead and chemically

stressed vegetation; discarded electrical transformers and capacitors; construction materials suspected to contain hazardous materials; supply or groundwater monitoring wells; obvious locations of past and present chemical disposal.

Conclusions: ADaPT observed the following conditions which, in our opinion, may represent environmental risk to the subject parcels in accordance with ASTM Practice E 1527-97:

In our opinion, the following presentation of potential conditions of "environmental concern" as defined by the ASTM Standard E 1527-97 and good & customary practice should be placed into proper perspective so as to not cause unnecessary alarm. Because of the site history and complexity of the subject site a number of potential environmental issues have been raised, by the Phase I study. It should be understood that the type of reported manufacturing that has occurred on the subject property does not usually lead to the production of large volumes of persistent, mobile hazardous chemicals, such as you might encounter in chemical or other types of manufacturing, that can cause widespread endangerment of human health and the environment. The issues presented below likely represent predominately localized potential problems that given the industrial use of the property can be addressed in a cost-effective manner and timeframe.

- There is a potential for impact from the former UST located between the Maintenance Shop and the Store room east of the Machine Shop which was reported removed in the late 1970s. No information was available on the UST removal or whether soil samples were collected from the excavation. According to Mr. Hutmacher no removal report was prepared and no soil sampling was conducted during the removal. In ADaPT's opinion, the former UST may represent a potential for subsurface soil contamination. An environmental impact from this UST cannot be discounted.

- The 1960 Sanborn Map depicts fuel oil tanks located on the east edge of the site adjacent to the former steel shop (fabrication shop). No information was obtained regarding the nature of the tanks. ADaPT believes that it would be prudent to further assess the potential for impact to subsurface soils from the fuel oil area identified in the Sanborn Map.

- Based on observations made during the site visit, spills and leaks have occurred at several machine locations in the past. Moderate to heavy staining adjacent to and beneath the machines appears to indicate that there is a potential for petroleum hydrocarbon impacts to the subsurface soils. ADaPT believes it would be prudent to assess the potential impact to the subsurface soils beneath the concrete in the vicinity of the machines.

- Based on waste notification documents, and discussions with Acrowood personnel, chlorinated and other solvents including tetrachloroethylene, 1,1,1-Trichloroethane, Methyl Ethyl Ketone, and mineral spirits were used prior to 1995 to clean parts in the paint area. Based on ADaPT's professional experience with these types of solvents there is potential for

impact to the subsurface soils if a release has occurred. ADaPT believes it would be prudent to further assess the potential for impacts to the subsurface soils beneath the paint area and beneath the paint storage area where these chemicals were reportedly stored.

- Field observations made along the eastern edge of the subject site appear to indicate that waste iron and slag was apparently disposed of on site. There is a potential for environmental impacts due to metals and waste casting materials. ADaPT believes it would be prudent to further assess the potential impact to subsurface soils from the waste metals and debris located along the eastern edge of the subject site.

- There is a low potential for impact to the subsurface soils from petroleum hydrocarbon and on-site chemical usage and releases to the ground surface which may be washed into the storm drain system during periods of precipitation. Stormwater drains pass through the main building and discharge at the eastern edge of the subject site and have the potential to collect spills and releases from inside the building. Metal shavings and stained soil observed at the discharge pipe appear to indicate that petroleum hydrocarbons may have impacted the soil beneath the discharge pipe. ADaPT believes that it would be prudent to further assess the potential for impact to subsurface soils from the existing storm drain.

- Historical information appears to indicate that a septic system was likely used prior to 1970. Long term use of the septic system may adversely impact the soil and/or groundwater by allowing potential hazardous compounds from past activity discharges to enter the soil and/or groundwater, if such compounds were ever introduced to the septic system. ADaPT believes that it would be prudent to further assess the potential for impact to subsurface soils from the abandoned septic system.

- Historical information indicates that the site was used as a metal and iron casting foundry for over 60 years. Based on typical industry operations practices, and ADaPT professional experience with other similar industries, there is a potential for environmental impacts due to use of solvents, metals and petroleum hydrocarbons. ADaPT believes it would be prudent to further assess the potential for subsurface impacts to soils from operational activities associated with casting and molding metal work.

- According to documents and Acrowood personnel the on site transformers may not contain PCBs. Based on ADaPT's site visit and interviews it appears that several of the transformers are no longer used or needed. ADaPT understands that Acrowood personnel routinely inspect the transformers for leaks and releases. ADaPT believes it would be prudent to have all the unused transformers properly disposed of to eliminate potential releases from the unused transformers.

The Executive Summary is intended for introductory purposes only and should be used in conjunction with the full text of this report.

2.0 INTRODUCTION

2.1 Purpose

The purpose of the Phase I is to evaluate the subject site for indications of recognized environmental conditions due to previous or ongoing, on-site and off-site activities or conditions. Where applicable, the Phase I also strives to satisfy one of the requirements to qualify for the innocent purchaser/landowner defense to Comprehensive Environmental Response, Compensation and Liability Act, 42, U.S.C. 9601, et seq. (CERCLA) liability. The Washington Model Toxics Control Act (MTCA), Chapter 70. 105D Revised Code of Washington (RCW) has a similar provision for exemption from liability. The Phase I endeavors to provide "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice in an effort to minimize liability" as stated in CERCLA and MTCA.

2.2 Special Terms and Conditions

Written authorization to perform this Phase I was given by Mr. Farhang Javid of Acrowood Corporation on July 29, 1999.

2.3 Scope of Work

The scope of work for this study consisted of gathering reasonably ascertainable information in general accordance with the American Society for Testing and Materials (ASTM) Standard Practice for Phase I Environmental Site Assessments (ASTM Practice E 1527-97). Specifically, this Phase I consisted of the following:

- A reconnaissance to assess the subject site for the existence of recognized environmental conditions.

- A reconnaissance of the area immediately surrounding the subject site to evaluate adjoining sites for recognized environmental conditions.

- A review of regulatory agency (U.S. Environmental Protection Agency, Washington State Department of Ecology, etc.) database lists, and individual site files if necessary, to evaluate reported environmental concerns near the subject site.

- A survey of available local geologic and topographic maps, as well as additional information concerning public and private water sources in the project vicinity.

- A review of historical sources including available business directories, aerial photographs, maps, tax assessment records, and building/planning department records. The historical information was used

- to evaluate past and present land use at the subject site and immediate surrounding area to document businesses, activities, or conditions that could possibly compromise the environmental integrity of the subject site.

- Preparation of a report documenting the findings of the Phase I and our opinion of the possibility that contamination of the subject site may exist due to on-site or nearby off-site land use activities.

2.4 Limitations

This assessment is intended to provide the client with information regarding apparent suspicions of existing and potential recognized environmental conditions associated with the subject property. ADaPT warrants that this Phase I Environmental Site Assessment was performed using generally accepted, good commercial and customary environmental assessment practices. ADaPT believes that the information obtained from the records review and the interviews concerning the site is reliable. However, ADaPT cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. No other warranty, either implied or express is given.

Environmental impairment of property because of activities such as illicit or unreported dumping or spilling of hazardous or deleterious materials may not be readily apparent. The opinions and conclusions presented in this report are based on information readily available at the time of the assessment. The collection of quantitative information, such as data generated by the analysis of soil or water samples, was beyond the scope of this assessment. The Phase I does not address the ASTM Phase I non-scope issues of asbestos, radon, lead-based paint, lead in drinking water, and wetlands. Other project specific limitations are presented in the appropriate sections of this report.

This report has been prepared for the exclusive use of Acrowood Corporation and their agents for specific application to the project site. Use or reliance upon this report by a third party is at their own risk. ADaPT does not make any representation or warranty, express or implied, to such other parties as to the accuracy or completeness of this report or the suitability of its use by such other parties for any purpose whatever, known or unknown, to ADaPT.

3.0 SITE DESCRIPTION

A Location/Topographic Map (Figure 1), Parcel Map (Figure 2), and Site Plans (Figures 3 and 4) are attached at the end of the report.

3.1 Location

The subject site is located at 4425 South Third Avenue in Everett, Washington (T29N, R5E Sec 32).

3.2 Site and Vicinity Characteristics

According to information obtained from the Snohomish County Tax Assessor's office, the subject site as defined for this report includes a group of six (6) tax parcels located west of the Burlington Northern Railroad north of 46th Street and south of the south end of Smith Avenue. The tax parcel numbers, including reported acreage, are listed below.

Parcel No.	Acreage	No. of Structures
322905-2-001-0009	10.00	twelve (12) + partial
322905-2-002-0008	3.84	partial (1) Office/lab
322905-2-014-0004	1.39	none
322905-2-059-0000	4.85	none
5005-003-012-0004	0.74	none
292905-05	0.25	none
Total	**21.07**	**13**

According to the United States Geological Survey (USGS) 7.5 minute series topographic map "Everett" (1953 photo revised in 1973), the subject site is at an elevation of approximately 10 to 60 feet above mean sea level. Topographically, the western edge of the subject site slopes moderately to the east. The central portion of the subject site has been graded level. The eastern edge of the subject site slopes moderately to steeply to the east.

The subject site is bordered on the east by the Burlington North Railroad tracks, beyond which is vacant land; on the south by Lowell Park; on the north by automobile repair shops and bone yards; and on the west by residential and commercial structures, beyond which is South Third Avenue.

Selected photographs of the subject site are presented in Appendix A.

3.3 Description of Improvements

The subject site is currently developed with 13 existing structures and two parking lots. Table 1 summarizes the description of each structure. The structures are located in the northern and central portion of the subject site (Photo 1). The southern portion of the subject site currently is vacant and overgrown with blackberry bushes, trees and weeds. One of the parking lots is located above and west of the main building (Building 1). The second parking lot is located adjacent and to the north of Building 11. The areas of the site between each building are covered with gravel. The subject site currently is serviced by natural gas, electrical and water utilities and sanitary sewer.

Table 1: Description of Onsite Structures*

Bldg #	Year Built	Construction type	Square footage	Building Description
1	1913	Wood frame w/concrete slab	122,092	Main Building: includes the machine shop and the old foundry, air compressors, maintenance, blacksmith, fabrication shops and miscellaneous storage rooms and areas; west central portion used for offices,
2	1913	2-story wood framed	3,676	Storage of old foundry patterns
3	1945	3-story Block/concrete	4,185	Storage of old foundry patterns
4	1948	1-story Block/concrete	4,746	Storage of old foundry patterns
5	1913	1-story Wood framed and floor	4,376	Storage area for old equipment and parts; wood working for building wooden shipping boxes for manufactured equipment
6	1962	1-story Wood framed	918	Storage of old foundry patterns
7	1957	1-story wood framed	360	Testing of new equipment
8	1947	1-story wood framed with dirt floor	1,542	Garage; parking and storage of competed shipping boxes.
9	1948	Masonry block w/ concrete slab	324	Used for storage of paints and toluene
10	1942	1-story block	174	Unused formerly a laboratory for the foundry
11	1970	2-story	10,112	Main Administration office building;
12	1976	Metal	2,000	Customer equipment testing room
13	?	Open Wood Frame	1,122	Storage area

*See Figure 3 for location of buildings

4.0 INTERVIEWS, REPORTS, AND ENVIRONMENTAL LIENS

Persons who may have information concerning environmental conditions at and surrounding the subject site were interviewed. Pertinent information obtained during the interviews appears in the appropriate sections of this report.

Mr. Phillip Hutmacher Controller for Acrowood, completed an Environmental Site Assessment

Questionnaire. Mr. Hutmacher is unaware of any environmental liens against the subject parcels. He stated that the Acrowood has operated the site since the 1984. The completed questionnaire is presented in Appendix B.

Mr. Pat McPherson, Maintenance Supervisor for Acrowood provided information on the operations and manufacturing activities at the subject site.

Mr. Bob Felix, Manager of Manufacturing for Acrowood was contacted regarding chemical uses. Mr. Felix also provided a chemical list, hazardous waste notifications for 1993 to 1998, inspection reports from Puget Sound Air Pollution Control Agency, City of Everett Fire Department, State of Washington Department of Labor and Industries, EPA Toxic Substances Section (regarding PCBs in transformers) and State of Washington Department of Ecology. The chemical use list and MSDS sheets are presented in Appendix C. Waste notification reports for 1993 to 1998 are presented in Appendix D and EPA response letters regarding PCB content in on site transformers is presented in Appendix E.

Mr. Paul McKee of Everett Public Service was contacted regarding sanitary sewer connection information. According to Mr. McKee the subject site was connected to sewer in 1970.

Mr. Darryl Stoutsenberger, Inspector for the City of Everett Fire Prevention was contacted regarding UST permits for installation or removal. Mr. Stoutsenberger indicated that there were no records of UST at the subject site.

Snohomish County Health department was contacted regarding septic system permits. No records of septic permits were located by Snohomish County personnel.

5.0 PHYSICAL SETTING

5.1 Regional Physiographic Conditions

The subject site is situated west of the Snohomish River on a east-facing slope. The Snohomish River flows northwest, past the subject site.

5.2 Geologic and Soil Conditions

The United States Department of Agriculture Soil Conservation Service's *Soil Survey of Snohomish County Area, Washington* (Alfonso Debose, and Michael W. Klungland, 1983) was consulted for information relating to soils underlying the subject site. The survey indicates the soil unit underlying the subject site is the Everett Series, gravelly sandy loam, which the survey describes as:

"...This very deep, somewhat excessively drained soil is on terraces and outwash plains. It forms in glacial outwash.... Typically, the surface layer, where mixed to a depth of 6 inches, is

dark brown gravelly sandy loam. The subsoil is dark brown very gravelly sandy loam about 12 inches thick. The upper part of the substratum is brown very gravelly loamy sand about 5 inches thick. The lower part to a depth of 60 inches or more is dark brown extremely gravelly sand. In some areas the substratum is weakly cemented....This unit is mainly used as woodland and for urban development."

5.3 Hydrogeology

Groundwater aquifers can be found in the valley floor alluvium and in glacially consolidated deposits beneath the alluvium. Typically, groundwater, under unconfined conditions, is quite shallow in the valley bottom. Near-surface or perched groundwater typically occurs when an underlying soil layer of lessor permeability prevents the downward percolation of water. Water will build up above the less permeable soil, and move laterally in the more conductive overlying soils.

Although groundwater flow direction is difficult to predict without the installation of at least three monitoring wells that measure water levels over time, an estimate of possible near-surface groundwater flow direction is provided to help evaluate potential on-site and off-site contaminant impacts. Groundwater flow direction is the path along which dissolved contaminants might migrate if present in groundwater supplies. Typically, in this region, the near-surface groundwater flow direction generally follows topography or towards the local surface water body. For example, the subject area slopes east towards the Snohomish River, and so near surface groundwater flow direction likely flows toward the east. Variations in this assumed flow direction may exist that would remain uncharacterized without performing a subsurface exploration program with groundwater monitoring wells, which is beyond the scope of the Phase I.

5.4 Drinking Water Wells and Public Water Supply

A review of water well reports at the Washington Department of Ecology (Ecology) Northwest Regional Office in Bellevue, Washington did not reveal the presence of drinking water wells within one mile of the subject site. The subject site receives its water from the City of Everett which receives its water from surface water and it is unlikely that any potential releases would impact the drinking water.

5.5 Stormwater Drainage

On site stormwater appears to drain towards the Snohomish River approximately 1/2 mile to the east. On site stormwater that falls on the buildings is collected in open trenches and drains towards the eastern property edge. Several of the open trench drains are located to run through the main building.

6.0 HISTORICAL USE INFORMATION

This section is divided into two subsections. The first subsection (Section 6.1) summarizes the various historical sources that were consulted. The second subsection (Section 6.2) is a decade-by-decade discussion of the historical uses of the subject site and immediate surrounding area.

6.1 Historical Sources

The land use history of the subject site and immediate surrounding area was researched utilizing the various reasonably ascertainable sources described below.

Tax Assessment Records

We obtained tax assessment information from the Snohomish County Department of Assessments. The subject property reviewed for this report included six (6) separate tax parcels, which are listed in Section 3.2 of this report.

Building Department Records

Building plans and permits were reviewed at the Everett Publics Works Department's offices in Everett, Washington.

Aerial Photographs

ADaPT reviewed aerial photographs from the years 1947, 1955, 1967, 1976, 1981, 1985, 1993, and 1997 at Walker & Associates, Inc. of Tukwila, Washington. The photographs range in scale from 1:1,000 to 1:2,000, and are black and white and color. The review of the aerial photographs is interpretative and limited to the area within approximately one-quarter-mile of the subject site. The scale of each photograph did not provide a clear image of specific site characteristics. However, we were able to discern the absence and presence of structures on the subject site, as well as developmental trends in the immediate subject area.

Historical Maps

We reviewed the USGS 7.5 minute series topographic map "Everett Quadrangle" (1953; photo revised 1973). We also reviewed Kroll maps dated 1960 and 1997.

We reviewed the collection of Sanborn Map Company fire insurance maps at the University of Washington's Suzallo Library. The maps are commonly called Sanborn maps. Sanborn maps show building construction type and use, and may show underground and above ground storage tanks, chemical storage areas, and other recognized environmental conditions. The

Sanborn Map Company published maps dating from 1867 to the present for various cities and towns, and therefore the maps are a good source for identifying the past uses of a property. ADaPT reviewed Sanborn maps from the years 1957 and 1960.

Business Directories

In an effort to document past uses of the subject site and immediate surrounding area, ADaPT reviewed available historical business directories such as those published by the Polk Company. These directories are commonly known as Polk's directories. ADaPT reviewed the business directory collection at the main branch of the Seattle Public Library and at the University of Washington's Suzallo Library. A record of the subject site did not appear until 1970. The Polk's directories were reviewed for the years 1970, 1977, 1984, and 1986. The Cole's directory was also reviewed for the year 1991.

6.2 Historical Findings

Following is a decade-by-decade discussion of the uses of the subject site and immediate surrounding area.

1910s
Tax assessment information indicated that the Machine Shop (Building #1), Pattern Shop (Building #2) and Storage Building (Building #5) were constructed in 1913. According to Mr. Hutmacher the site was occupied by Sumner Iron Works and used as a iron and metal casting foundry.

1940s
Tax assessment information indicated that the Laboratory (Building #10) was constructed in the year 1942, the Pattern Storage (Building #3) in 1945, the Garage (Building #8) in 1947 and the Pattern Storage Buildings (Buildings #4 and #9 [paint storage]) in 1948. These structures also appear on a 1947 aerial photograph.

A 1947 aerial photograph depicts an area to the south of Building's #3 and #4 which appears disturbed. The 1947 aerial photograph also depicts the land bordering the south and east of the subject site as being undeveloped and the land to the north and west as residential development.

1950s
Tax assessment information indicated that the Storage (Building #7) was constructed in 1957 and is also depicted on the 1957 Sanborn map.

A 1955 aerial photograph depicts the subject site much as it appeared in the 1947 aerial photograph.

The Machine and Pattern Shop's (Building's #1-4) are indicated on the 1953 USGS topographic map.

According to a letter dated March 12, 1957 indicated that natural gas was reportedly installed at the subject site in March 1957.

1960s

Tax assessment information indicated that the Storage (Building #6) was constructed in 1962 and an addition was put on the Machine Shop in 1968. Buildings #6 and #7 were not apparent on the 1967 aerial photograph or on the 1960 Kroll map, but were located on the 1960 Sanborn map. These additions can be seen as a revision on the 1973 photo revised 1953 USGS topographic map.

A 1967 aerial photograph depicts a parking lot in the former disturbed area observed in the 1947 photograph. A parking lot in the north west corner of the subject site also appears in the 1967 aerial photograph.

1970s

Tax assessment information indicated that the Office and Laboratory Facility (Building #11) was constructed in 1970. The Testing Building (Building #12) was constructed in 1976. These buildings also appear as revisions on the 1973 revised 1953 USGS topographic map and appear on the 1976 aerial photograph.

A 1976 aerial photograph shows the south and east side of the subject site graded with no vegetation and a park adjacent to the southwest portion of the subject site.

A building permit for the slab inspection and framing inspection for the Administration offices was obtained from the Everett Public Works Department. In addition, based on a February 17, 1976 letter addressed to Black-Clawson, Inc., the subject site address was apparently changed in 1976 from 4100 Cascade View to 4425 South Third Avenue.

The 1970 Polk's directory lists Black Clawson – Sumner at the subject site address.

1980s

Aerial photographs from 1981 and 1985 depict the site much as it appears in the 1976 aerial photograph.

An apparent auto repair shop is shown to the north of the subject site on the 1981 aerial photograph. A 1985 aerial photograph shows the auto repair shop with a junkyard.

A 1985 aerial photograph also shows the addition of a tennis court adjacent to the southwest

portion of the subject site.

The 1986 Polk directory lists Acrowood Corporation at the subject site address.

According to Mr. Hutmacher, Mr. Farhang Javid owner of Acrowood purchased Black Clawson in June 1984.

1990s
There are no changes to the subject site depicted on the 1993 and 1997 aerial photographs or on the 1997 Kroll map.

A new building appears on the vacant lot to the north of the site in the 1993 aerial photograph.

7.0 RESULTS OF RECONNAISSANCE

7.1 On-Site Inspection Observations

ADaPT representatives conducted a reconnaissance of the subject parcels on August 5, 1999. The purpose of the site reconnaissance was to evaluate current conditions at the subject site and to look for recognized environmental conditions. The reconnaissance consisted of walking and observing the subject parcels and providing an overlapping field of view. We were accompanied on our site visit by Mr. Phillip Hutmacher, Controller for Acrowood and Mr. Pat McPherson, Maintenance supervisor for Acrowood. As stated in Section 3.2 in this report, the subject property includes six (6) separate tax parcels developed with thirteen (13) structures. The major facilities on the parcel included the main manufacturing building and associated storage buildings (See Figure 3). These buildings are discussed in detail below, followed by the other undeveloped parcels.

Building #1: Main Manufacturing Building
The Main Manufacturing building is located in the northern portion of the subject site adjacent to the western property line and covers approximately 122,000 square feet. The building is used for manufacturing of wood pulp chipping and sorting equipment. Mr. McPherson provided detailed information on the operation of the many machines and areas within the main building. According Mr. McPherson the machines are used in the fabrication of chipping blades and sorter for the wood pulp industry. The main building is divided into a fabrication area, machining and grinding area, a paint area, air compressor room, store room, historical foundry, blacksmith shop, welding and miscellaneous work areas.

The main portion of the building (fabrication and machining areas) contain numerous machines that are used to produce the final products. Mr. McPherson indicated that each machine uses lubricating oil and coolant during the manufacturing process. The lubrication oil is stored in the machine and is recycled. The used oil is reportedly stored on site and transported off site for

disposal by Safety Kleen on a regular basis. Moderate to heavy oil staining was observed on the concrete slab beneath and adjacent to many machines (Photo 2). The concrete floor appears to have been patched and several cracks and joints were noted throughout the building. According to Mr. McPherson leaking machines are repaired. At the time of ADaPT's site visit only a couple of machines had observed leaks. New lubrication oil, hydraulic oil, and coolant is stored on dispenser racks with a drip tray in two areas (air compressor room and the storeroom) of the main building (Photo 3 & 4). Some concrete staining was observed beneath the dispenser racks and adjacent to the waste oil AST. The product is reportedly transferred in small individual containers by machine operators. Small 1 quart to 1-gallon metal containers of oil were noted at each machine. At the time of the site visit several 5-gallon plastic containers of coolant were located throughout the main building.

A paint area was observed in the southern portion of the building (Photo 5). At the time of the site visit several pieces of equipment were either being painted or being prepared for painting. According to Mr. McPherson and Mr. Felix parts are cleaned prior to painting using toluene and reportedly non-hazardous cleaners. Waste notification reports for 1993 to1998 provided by Mr. Felix indicated that prior to 1995 some of the solvents and paint additives used included tetrachloroethylene (PCE), 1,1,1-trichloroethane (TCA), methyl ethyl ketone (MEK), mineral spirits, xylenes, ethyl benzene, and toluene. According to Mr. Felix these chemicals were stored in 55-gallon drums in the Paint Storage building (Building 9) prior to being used in the painting area. Mr. Felix stated that with the exception of toluene none of the other thinners/solvents are currently being used at the subject site.

No floor drains were observed in the main building. Several concrete lined sumps were observed in the air compressor room that reportedly drain the water from the air compressor to a discharge point east of the main building along the eastern slope.

Buildings #2, 3, 4 & 6: Pattern Storage Buildings

Buildings 2, 3, 4, & 5 are located south and southeast of the main building (Figure 2). Buildings 3 and 4 are concrete or block construction and are 3 and 1 story respectively. The remaining buildings are wood framed construction. These building are used to store old patterns, molds, and box forms made for the former foundry. According to Mr. Hutmacher these patterns are occasionally used to replace broken equipment brought in by customers. No hazardous materials or chemicals were observed in the storage rooms.

Building #5: Carpenter Shop and Storage

A portion of Building 5 is used for manufacturing wooden shipping boxes for parts and equipment transported to customers. The remaining portions of the building are either used to store old broken or outdated equipment and parts. At the time of ADaPT's site visit no chemical containers were observed.

Buildings 7 and 12: Testing Rooms

Buildings 7 and 12 are used to test new equipment and to demonstrate equipment to prospective customers. According to Mr. McPherson Building 7 is used for in house demonstrations of newly developed equipment while Building 12 is used for prospective purchasers of equipment. At the time of ADaPT's site visit several 55-gallon drums containing wood chips used in the demonstrations were stored south and east of the building. Several 5-gallon containers also filled with wood chips were also observed adjacent to some of the pieces of equipment.

Building 8: Garage/Storage

Building 8 is used as a storage area for completed or unused shipping boxes and vehicle parking for facility employees. At the time of ADaPT's site visit a 55-gallon drum of lubricating oil was observed in the southern end behind a closed garage door. The drum did not appear to be leaking and no staining was noted beneath the drum. According to Mr. McPherson the drum was to be moved to the main building where drums are usually stored.

Building 9: Paint Storage

Building 9 is located south of the main building adjacent to the paint area. The building is used for storing paints, thinners, and toluene. Numerous old (dry) paint spills were noted on the concrete floor during the site visit. The paint and thinners are stored in 1-, and 5-gallon containers. Empty containers are allowed to air dry in the building prior to disposal. At the time of the site visit a 55-gallon drum of toluene was located in southwest corner of the building and was fitted with a spigot (Photo 6). No drip pan or containment was observed around the drum or beneath the spigot. Minor to moderate staining was observed near and beneath the 55-gallon drum of toluene.

Building 10: Unused Former Laboratory

The former laboratory is located at the north end of the subject site and reportedly is not used by the current owners. The building was locked and ADaPT did not access the interior of the building.

Building 11: Main Administrative Offices

Building 11 is used as the main administrative offices. No chemicals are reportedly stored in the building.

Upper Parking Lot

The upper parking lot is located west of Building 1 adjacent to South Third Avenue. Access to the subject site is by walkway to the second floor of Building 1. At the time of ADaPT's site visit the parking lot had few vehicles in it.

Undeveloped Areas:

At the time of ADaPT's site visit the area south of the Main Administration Offices is vacant and undeveloped. Immediately to the south of the offices is a level area covered with grasses and small bushes. The eastern edge of the level area adjacent to the eastern slope, appears to be slumping. The slope movement has exposed the upper 3 to 4 feet of the soil in the vicinity of the slope. Based on observations the upper 3 to 4 feet appears to be fill soils consisting of waste metal debris and soil. A one-foot thick layer of rusted iron debris was observed along the edge of the slope and at other locations throughout the site generally along the eastern edge of the subject site (Photo 7). South of the level area the site slopes to the southeast and is covered by mature trees and heavy growth of blackberry bushes and weeds. The southern end of the subject site was not accessible due to the vegetation.

Two drums were observed on the eastern slope in addition to miscellaneous trash and debris. Due to the vegetation on, and the steepness of, the slope there was no access to the drums. The drums appeared empty and no staining or stressed vegetation was observed in the vicinity of the drums.

Electrical Transformers:
Ten private transformers were observed on the subject site. Nine of the transformers are reportedly not in use and are inspected regularly by Acrowood personnel. At the time of the site visit two unused transformers were observed in the main building adjacent to the office area. These transformers are located on a platform approximately 12 feet above the floor. Three additional transformers are located outside the foundry area of the main building on the north east corner of the building (Photo 8). Four unused transformer were located adjacent to a brick electrical vault east of the main building. According to analytical testing conducted on the transformers by GE none of the on-site transformers appear to contain PCBs. Analytical results and locations are presented in Appendix E.

In addition to the private transformers six pole-mounted transformers were observed on site. Three transformers were observed adjacent to the eastern edge of the site east of Building 11. The remaining three were observed adjacent to Building 12. The transformers appeared in good condition and no leaks or staining was observed beneath the transformers.

Drainage pipes:
At the time of ADaPT's site visit a drainage pipe was observed flowing on the eastern edge of the site between Buildings 2 and 3. According to Mr. McPherson and Mr. Hutmacher the pipe is connected to the roof drains on the facility buildings. Acrowood personnel indicated that the drains are open drains and that some of the drains actually pass through the main building. ADaPT observed several areas within the building where the drainage trench was visible within the building. At the time of our site visit there was some runoff from a recent rain event. At the discharge pipe located in the central portion of the site along the east edge metal filings and shavings were observed and the soil surrounding the discharge area appeared to have a gray color (See Figure 3 and Photo 9). A slight oily sheen was noted on the wet soil and liquid.

Two additional drainage pipes were observed along the east edge north of the storm water drainpipe. According to Mr. McPherson these pipe drain the air compressors. No staining was observed near these drainpipes.

Chemical Use:
A list of chemicals currently being used and approximate amount per year is presented in Appendix C. According to the list the following lubrication, cutting, hydraulic oil, and coolants are used:

TABLE 2: Chemical List (Currently Used)

Name	Hazardous Chemical Content (MSDS)	Reported Use
DTE Light Lube	None	Petroleum based lubricant
Mobil Vactra #2	None	Petroleum based lubricant
Mobil Vactra #4	None	Petroleum based lubricant
Syntilo 9951 Coolant	Ethanol, 2,2,2"-nitrilotris; Boron Sodium Oxide	Coolant
Toluene	Toluene	Solvent/thinner
DTE Heavy Medium Oil	None	Hydraulic oil
DTE Extra Heavy Oil	None	Hydraulic oil
Mobilmet s-122 Soluble Cutting oil	None	Cutting oil
Mobilmet Gamma Cutting Oil	Oils, lard, ME esters, sulfurized	Cutting oil
Semi-Cut Coolant	Distilled hydrotreated naphthenic oil; triethanolamine	Coolant

During the site visit small aerosol and 1-quart to 1 gallon original containers of other chemicals were observed throughout the main building. These chemicals included paints, aerosol cans of primer, lubricants, thinners and lubricants.

The site reconnaissance did not reveal signs of the presence of the following on the host parcel or proposed lease area: lagoons; landfills; hazardous waste disposal areas including sumps, pits, ponds; dead and chemically stressed vegetation; discarded electrical transformers and capacitors; construction materials suspected to contain hazardous materials; groundwater monitoring wells; obvious locations of past and present chemical disposal.

7.2 Adjacent Site and Vicinity Observations

ADaPT representatives conducted a reconnaissance of the area surrounding the subject site on August 5, 1999. The purpose of this reconnaissance was to observe land use in the subject site vicinity and to evaluate the potential for nearby businesses to generate, use, or store hazardous substances that may affect the subject site. The off-site reconnaissance was non-intrusive. That is, the adjoining properties were observed from the subject site and public right-of-ways.

North

Immediately to the north of the site is are automobile repair and bone yards for used auto parts recycling businesses. Interspersed are single family residences.

South

Immediately to the south of the site is Lowell Park.

West

Immediately to the west are residential homes with commercial businesses occupying several of the former residences. Beyond the residences is South Third Avenue. The upper parking lot for Acrowood is located adjacent to South Third Avenue.

East

Immediately to the east is the Burlington Northern Railroad track, beyond which is vacant land. According to Acrowood personnel the vacant land is being filled for future development. To the northeast of the subject site an area that reportedly had a tire fire when previously used to store old tires. No evidence of the tires was visible at the time of the site visit. The vacant area did show evidence of fill material being placed on the adjacent site.

8.0 STANDARD REGULATORY AGENCY ENVIRONMENTAL RECORD SOURCES

Publicly available and practically review able regulatory agency reports generated from databases were reviewed with respect to the subject site. The reports, obtained from federal, state, and local government agencies, were reviewed in an effort to document any reported

environmental concerns that have occurred at the subject site or in the surrounding area. Sites or facilities appearing on the reviewed reports, within a certain search distance of the subject site, are discussed below. The search distances ADaPT utilizes for Phase I reports meet those specified in ASTM Practice E 1527-97. The following reports were reviewed (the search distance for each report is listed in parentheses):

- U.S. Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) report (one-half mile) and sites on the National Priority List (one mile).
- Washington State Department of Ecology's (Ecology) Confirmed and Suspected Contaminated Sites report (one mile).
- The EPA's Resource Conservation and Recovery Act (RCRA) total notifiers report (subject site and adjoining properties), including RCRA Treatment, Storage, and Disposal (TSD) facilities (one-half mile), and TSD facilities subject to Corrective Action (CORRACTS) under RCRA (one mile).
- Ecology's Underground Storage Tank registration list (subject site and adjoining properties).
- Ecology's Leaking Underground Storage Tank list (one-half mile).
- Emergency Response Notification System (ERNS) Spill Report (subject site). Landfills (one-half mile).

8.1 CERCLIS and NPL

The CERCLIS database is used by EPA to track activity conducted under the Superfund program including sites that represent a long-term threat and are classified on the National Priorities List (NPL). **The review of the database (dated May 11, 1999) revealed no CERCLIS sites located within approximately one-half mile of the subject site, and no NPL sites located within approximately one mile of the subject site.**

8.2 Confirmed and Suspected Contaminated Sites Report

Ecology's Confirmed and Suspected Contaminated Sites (CSCS) report lists suspected or confirmed hazardous substance sites in the state of Washington. **A review of the CSCS report (dated May 21, 1999) revealed 5 CSCS sites located within approximately one mile of the subject site. These sites are located over ½ mile from and appear to be located either down-gradient or cross-gradient from the subject site. Based upon the location of the CSCS sites, it is unlikely that these sites have impacted the subject parcel.**

8.3 RCRA Total Notifiers, TSD, and CORRACTS TSD

The RCRA total notifiers report is a list of regulated generators, handlers, transporters, and disposers of hazardous materials. Listing on the RCRA report does not indicate a facility has been adversely affected by a hazardous material, but merely that the facility is required to monitor and document hazardous waste activities to EPA or Ecology. **The reviewed RCRA**

report (dated May 18, 1999) listed the subject site as a conditionally exempt generator.

The RCRA total notifiers report did not list any TSD facilities located within one-half mile of the subject site. The TSD CORRACTS report (dated May 18, 1999) did not list any TSD CORRACTS facilities situated within one mile of the subject site.

8.4 Underground Storage Tanks

Ecology's report of registered UST's (dated May 4, 1999) lists registered UST's in the state of Washington. The reviewed report did not list any UST's on the subject parcels or adjacent parcels.

According to Mr. Hutmacher a gasoline UST was removed from the site in the early 1980s. The UST was reportedly located near the storeroom (See Figure 3) adjacent to the main building. No soil samples were collected and no removal report was completed according to Mr. Hutmacher.

8.5 Leaking Underground Storage Tanks

Ecology's leaking UST (LUST) list is limited to reported leaking UST's. A review of Ecology's listing of LUST facilities (dated May 4, 1999) revealed 1 LUST site located approximately 1/2 mile north from the subject site. The LUST facility, located at 3931 Smith Street appears to be located cross-gradient from the subject parcel and therefore is unlikely to have any impact on the site.

8.6 Emergency Response Notification System Spill Report

The Emergency Response Notification System (ERNS) Spill Report is a national database used to collect information on reported accidental releases of oil and hazardous substances. The database contains information from spill reports made to federal authorities including the EPA, the United States Coast Guard, the National Response Center, and the United States Department of Transportation. A review of the yearly ERNS lists, dated from 1987-1998 did not reveal the subject site to be listed.

8.7 Landfills

A listing/study/report of landfills compiled by Snohomish Health District was reviewed for landfills located within an approximate one-half mile radius of the subject site. The reviewed listing/study/report (dated December 31, 1998) did not include landfill sites located within one-half mile of the subject site.

8.8 Septic Systems

ADaPT contacted the Snohomish County Environmental Health Department regarding the presence of or registration of septic tanks on the subject site. According to personnel no permits have been issued for the tax parcels.

Additional information obtained from Mr. Paul McKee of the Everett Public Services, appears to indicate that the subject site was connected to the sanitary sewer in 1970. Based on the 1970 date of connection it is possible that septic system was used prior to 1970 for disposal of sewer waste.

9.0 CONCLUSIONS AND RECOMMENDATIONS

ADaPT observed the following conditions which, in our opinion, may represent environmental risk to the subject parcels in accordance with ASTM Practice E 1527-97:

In our opinion, the following presentation of potential conditions of "environmental concern" as defined by the ASTM Standard E 1527-97 and good & customary practice should be placed into proper perspective so as to not cause unnecessary alarm. Because of the site history and complexity of the subject site a number of potential environmental issues have been raised, by the Phase I study. It should be understood that the type of reported manufacturing that has occurred on the subject property does not usually lead to the production of large volumes of persistent, mobile hazardous chemicals, such as you might encounter in chemical or other types of manufacturing, that can cause widespread endangerment of human health and the environment. The issues presented below likely represent predominately localized potential problems that given the industrial use of the property can be addressed in a cost-effective manner and timeframe.

- There is a potential for impact from the former UST located between the Maintenance Shop and the Store room east of the Machine Shop was reported removed in the late 1970s. No information was available on the removal or whether soil samples were collected from the excavation the two former gasoline USTs which were located at the southeast corner of the store. According to Mr. Hutmacher, no removal report was prepared and no soil sampling was conducted during the removal. In ADaPT's opinion, the former UST may represent a potential for subsurface soil contamination. An environmental impact from this UST cannot be discounted.

- The 1960 Sanborn Map depicts fuel oil tanks located on the east edge of the site adjacent to the steel shop. No information was obtained regarding the nature of the tanks. ADaPT believes that it would be prudent to further assess the potential for impact to subsurface soils from the area identified in the Sanborn Map.

- Based on observations made during the site visit spills, and leaks have occurred at several machine locations in the past. Moderate to heavy staining adjacent to, and beneath, the machines appears to indicate that there is a potential for petroleum hydrocarbon impacts to the subsurface soils. ADaPT believes it would be prudent to assess the potential impact to the subsurface soils beneath the concrete in the vicinity of the machines.

- Based on waste notification documents and discussions with Acrowood personnel chlorinated and other solvents including tetrachloroethylene, 1,1,1-Trichloroethane, Methyl Ethyl Ketone, and mineral spirits were used prior to 1995 to clean parts and as paint thinners in the paint area. Based on ADaPT's professional experience with these types of solvents there is potential for impact to the subsurface soils if a release has occurred. ADaPT believes it would be prudent to further assess the potential for impacts to the subsurface soils beneath the paint area and beneath the paint storage area where these chemicals were reportedly stored.

- Field observations made along the eastern edge of the subject site appear to indicate that waste iron and slag was apparently disposed of on site. There is a potential for environmental impacts due to metals and waste casting materials. ADaPT believes it would be prudent to further assess the potential impact to subsurface soils from the waste metals and debris located along the eastern edge of the subject site.

- There is a low potential for impact to the subsurface soils from petroleum hydrocarbon and on-site chemical usage and releases to the ground surface which may be washed into the storm drain system during periods of precipitation. Stormwater drains past through the main building and discharge at the eastern edge of the subject site and have the potential to collect spills and releases from inside the building. Metal shavings and stained soil observed at the discharge pipe appear to indicate that petroleum hydrocarbons may have impacted the soil beneath the discharge pipe. ADaPT believes that it would be prudent to further assess the potential for impact to subsurface soils from the existing storm drain.

- Historical information appears to indicate that a septic system was likely used prior to 1970. Long term use of the septic system may adversely impact the soil and/or groundwater by allowing potential contamination from past activity discharges to enter the soil and/or groundwater, if such compounds were ever introduced to the septic system. ADaPT believes that it would be prudent to further assess the potential for impact to subsurface soils from the abandoned septic system.

- Historical information indicates that the site was used as a metal and iron casting foundry for over 60 years. Based on typical industry operations practices, and ADaPT professional experience with other similar industries, there is a potential for environmental impacts due to use of solvents, PCBs, metals and petroleum hydrocarbons. ADaPT believes it would be prudent to further assess the potential for subsurface impacts to soils from operational

activities associated with casting and molding metal work. In addition, it would be prudent to evaluate the possibility of heavy metal laden dust within the on-site structures.

- According to documents and Acrowood personnel the on site transformers may not contain PCBs. Based on ADaPT's site visit and interviews it appears that several of the transformers are no longer used or needed. ADaPT understands that Acrowood personnel routinely inspect the transformers for leaks and releases. ADaPT believes it would be prudent to properly disposed of the transformers to eliminate potential releases.

ADaPT believes it would be prudent to conduct a Phase II Environmental Site Assessment to obtain additional subsurface information to evaluate the above listed potential environmental concerns.

ADaPT appreciates the opportunity to be of service to you on this project. Should you have any questions concerning this report, or if we can assist you in any way, please contact us at (206) *654-7045.*

Respectfully Submitted,

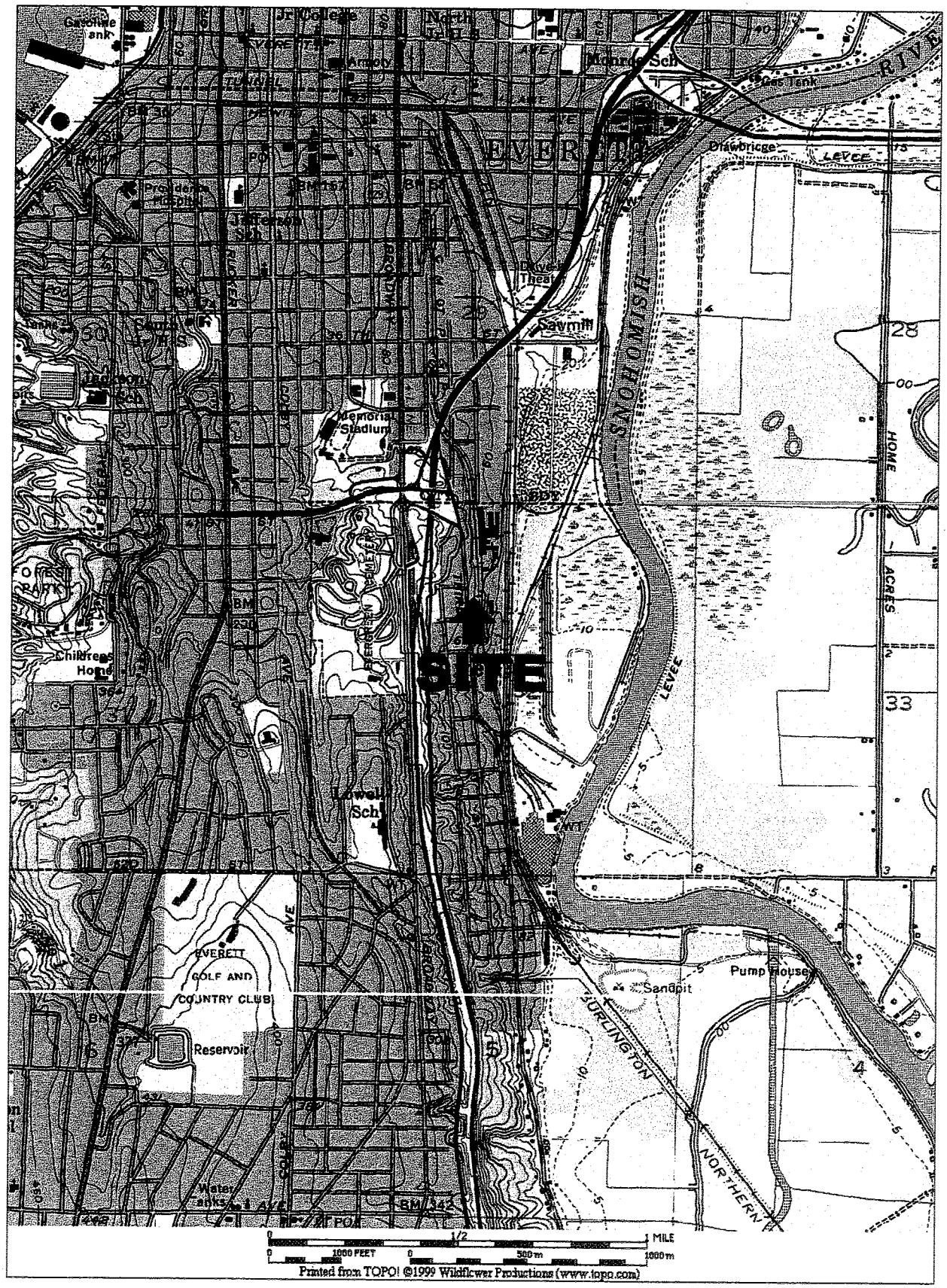
ADaPT Engineering, Inc.

Keith A. Ross, P.G.
Senior Project Manager

Valérie J. Hart
Environmental Staff

Daryl S. Petrarca, R.E.A.
Vice President of Environmental Services
Senior Reviewer

KAR/VJH/kar



ADaPT Engineering, Inc.

800 Maynard Avenue S., Suite 403
Seattle, Washington 98134

Ph : 206.654.7045 Fax : 206.654.7048

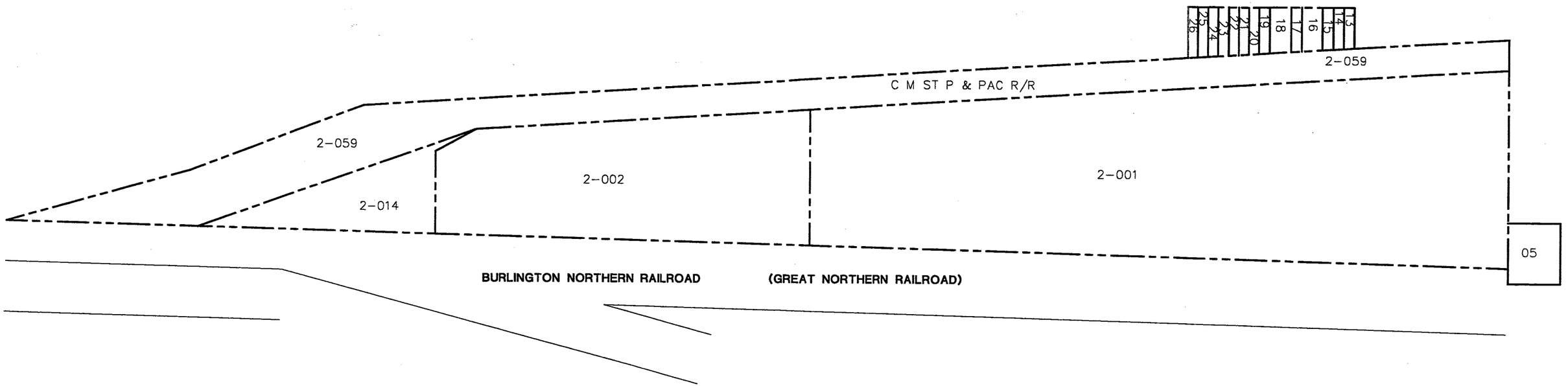
FIGURE 1 - Location/Topographic Map

Location : Acrowood Everett
4425 3rd Avenue
Everett, Washington 98206

Client : Acrowood Corporation

Date : 8/17/99 **Job # :** S-WA-99-2582

PRIMARY STATE HIGHWAY NO 1 (SR 5)



NE-32-29-5

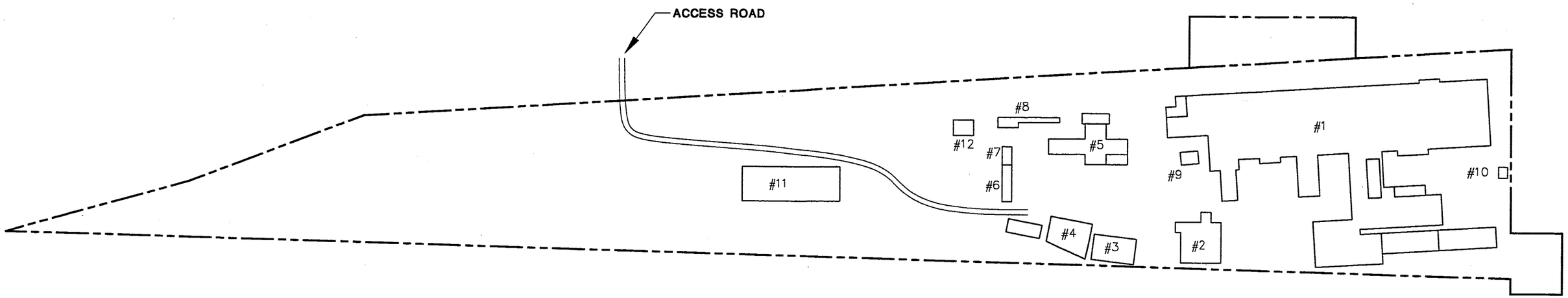
NOT TO SCALE

ADaPT Engineering, Inc.

800 Maynard Avenue S., Suite 403
Seattle, Washington 98134
Ph : 206.654.7045 Fax : 206.654.7048

FIGURE 2 - Parcel Map

Location : Acrowood Everett
4425 3rd Avenue
Everett, Washington 98206
Client : Acrowood Corporation
Date : 8/17/99 **Job # :** S-WA-99-2582



NOTES:

1 BUILDING NUMBER REFER TO TABLE 1

NOT TO SCALE

ADaPT Engineering, Inc.

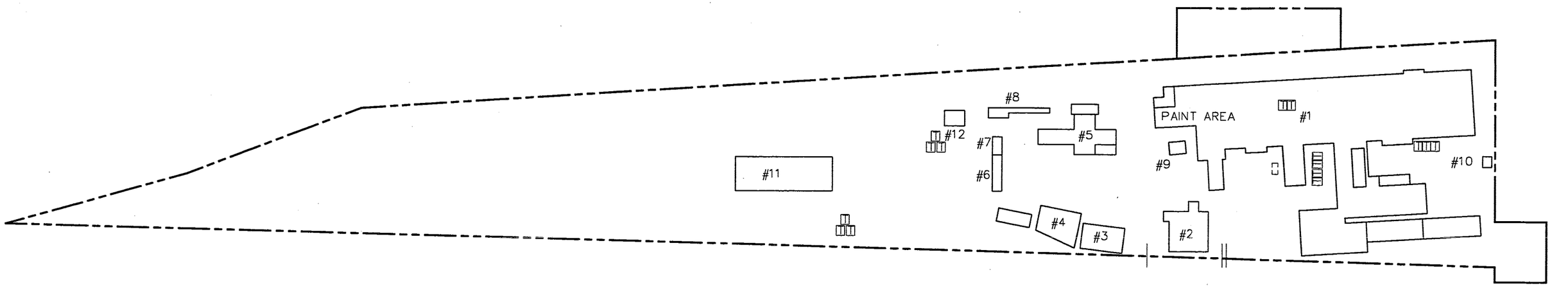
800 Maynard Avenue S., Suite 403
Seattle, Washington 98134
Ph : 206.654.7045 Fax : 206.654.7048

FIGURE 3 - Site plan

Location : Acrowood Everett
4425 3rd Avenue
Everett, Washington 98206

Client : Acrowood Corporation

Date : 8/17/99 **Job # :** S-WA-99-2582



NOTES:

1 BUILDING NUMBER REFER TO TABLE 1

REPORTED APPROXIMATE LOCATION OF FORMER UST

TRANSFORMERS

DISCHARGE PIPE ROOT DRAINS

AIR COMPRESSOR DRAIN

NOT TO SCALE

***ADaPT* Engineering, Inc.**

800 Maynard Avenue S., Suite 403
Seattle, Washington 98134
Ph : 206.654.7045 Fax : 206.654.7048

FIGURE 4 - Site Detail

Location : Acrowood Everett
4425 3rd Avenue
Everett, Washington 98206

Client : Acrowood Corporation

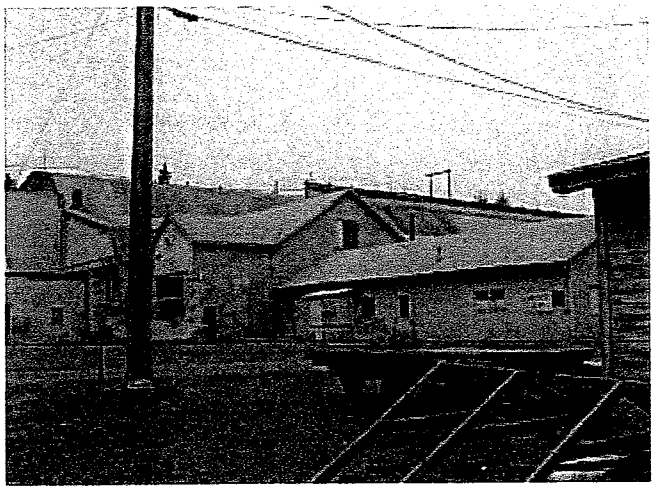
Date : 8/17/99 **Job # :** S-WA-99-2582

APPENDIX A

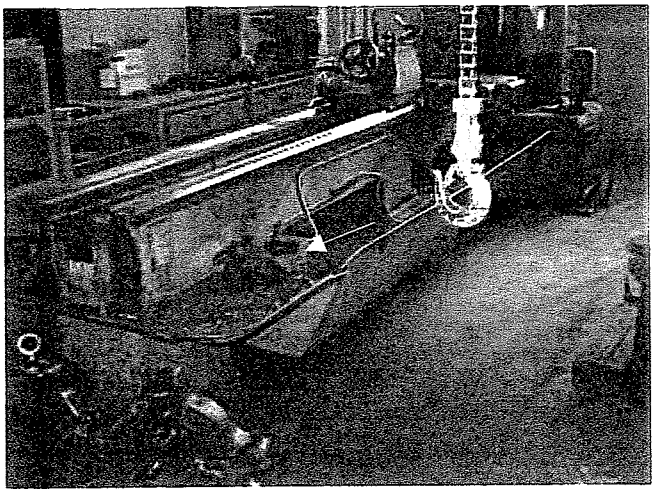
SELECTED SITE PHOTOGRAPHS

Acrowood
ADaPT Job No. S-WA99-2582

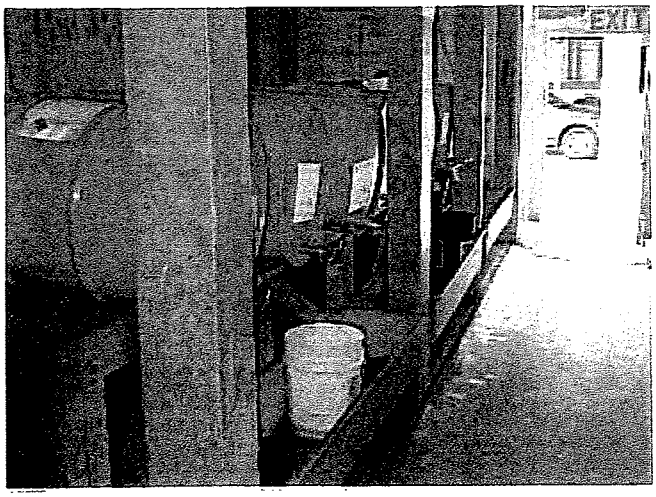
1. View of southeast corner of main building. Paint storage building center left. Compressor room behind red equipment.



2. View of typical machine. Note reservoir pump (arrow). Minor staining visible beneath tray.

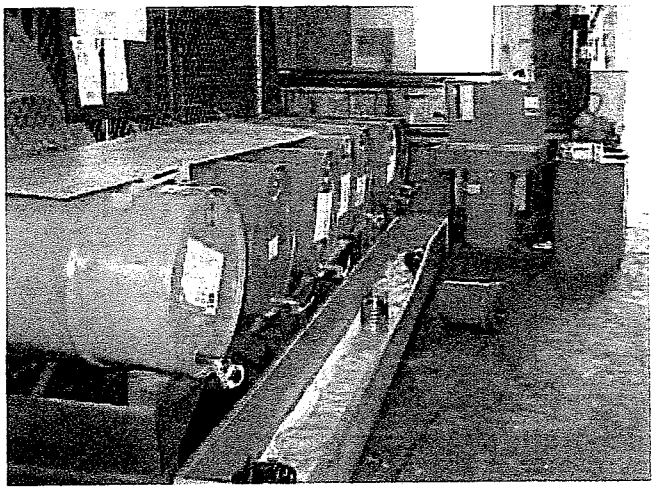


3. New oil dispenser rack with associated drip tray. Some staining beneath drip tray. Area adjacent to the store room.

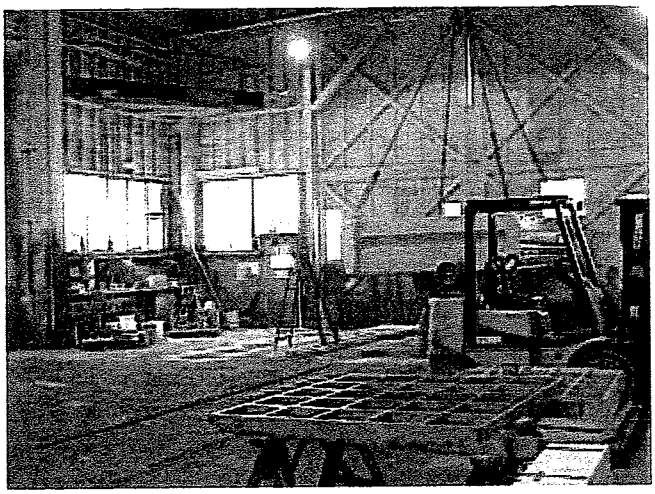


Acrowood
ADaPT Job No. S-WA99-2582

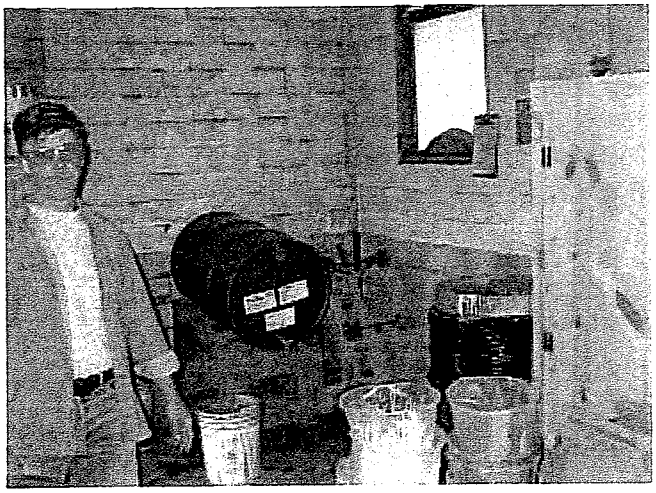
4. New oil dispenser rack with drip tray. Note full drums in background. Area adjacent to the air compressors.



5. Painting area in southern portion of main building.

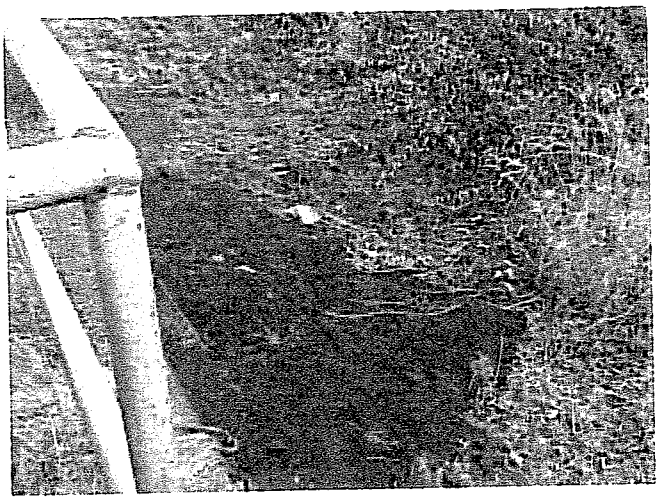


6. Paint storage building. View of toluene drum with spigot (green drum). Drum to the right of toluene drum is used for waste paints and thinners.

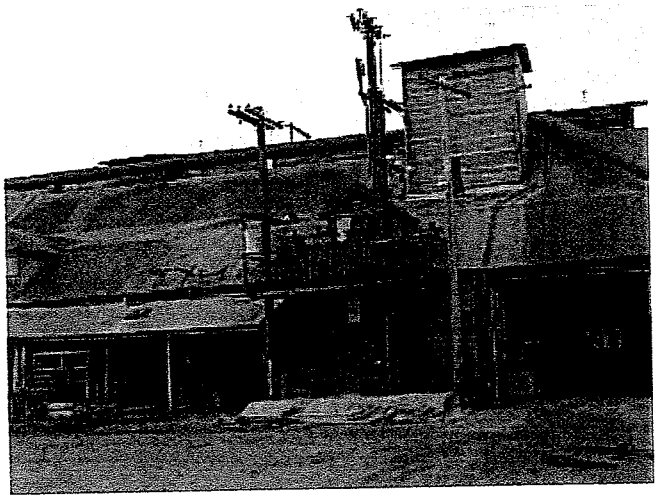


Acrowood
ADaPT Job No. S-WA99-2582

7. View of slag/blast sand disposed of along the eastern edge of the site.



8. View of transformers adjacent to the main building. The three gray transformers are not connected to building. The small light colored is in use.



9. View of drainage pipe. Note metal shavings and light gray stained soil around liquid.

APPENDIX B

COMPLETED ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE

ADaPT Engineering, Inc.
Page i

ENVIRONMENTAL SITE ASSESSMENTS QUESTIONAIRE

Site Description: ACRowood Corporation

Question	Owner/Occupants			Comments
	Yes	No	Unk.	
1a. Is the *property* used for an industrial use?	✓			
1b. Is any *adjoining property* used for an industrial use?	✓			
2a. Did you observe evidence or do you have any prior knowledge that the *property* has been used for an industrial use in the past?	✓			
2b. Did you observe evidence or do you have any prior knowledge that the *adjoining property* has been used for an industrial use in the past?	✓			
3a. Is the *property* used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?		✓		
3b. Is any *adjoining property* used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	✓			Motor Repair, Junk Yard
4a. Did you observe evidence or do you have any prior knowledge that the *property* has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing or recycling facility (if applicable, identify which)?		✓		
4b. Did you observe evidence or do you have any prior knowledge that the any *adjoining property* has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing or recycling facility (if applicable, identify which)?	✓			

Question	Owner/Occupant			Comments
	Yes	No	Unk.	
5a. Are there currently any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of >5 gal (19L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the *property* or at the facility?	✓			
5b. Did you observe evidence or do you have any prior knowledge that there have been previously any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of >5 gal (19L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the *property* or at the facility?	✓			
6a. Are there currently any industrial *drums* (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	✓			
6b. Did you observe evidence or do you have any prior knowledge that there have there been previously, any industrial *drums* (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	✓			
7a. Did you observe evidence or do you have any prior knowledge that *fill dirt* has been brought onto the property that originated from a contaminated site?		✓		
7b. Did you observe evidence or do you have any prior knowledge that *fill dirt* has been brought onto the property that is of an unknown origin?		✓		
8a. Are there currently any *pits, ponds*, or *lagoons* located on the *property* in connection with waste treatment or waste disposal?		✓		
8b. Did you observe evidence or do you have any prior knowledge that there have been previously, any *pits, ponds*, or *lagoons* located on the *property* in connection with waste treatment or waste disposal?		✓		
9a. Is there currently any stained soil on the *property*?			✓	WHAT DOES STAIN MEAN
9b. Did you observe evidence or do you have any prior knowledge that there has been previously, any stained soil on the *property*?			✓	WHAT DOES STAIN MEAN
10a. Are there currently any registered or unregistered storage tanks (above or underground) located on the *property*?		✓		
10b. Did you observe evidence or do you have any prior knowledge that there have been previously, any registered or unregistered storage tanks (above or underground) located on the *property*?	✓			GAS TANK TAKEN OUT IN THE 1970'S.

Question	Owner/Occupants			Comments
	Yes	No	Unk.	
11a. Are there currently any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the *property* or adjacent to any structure located on the *property*?		✓		
11b. Did you observe evidence or do you have any prior knowledge that there have been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the *property* or adjacent to any structure located on the *property*?		✓		
12a. Are there currently any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?		✓		
12b. Did you observe evidence or do you have any prior knowledge that there have been previously any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?		✓		
13a. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system?		✓		
13b. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that the well has been designated as contaminated by any government environmental/health agency?		✓		
14. Does the owner or occupant of the *property* have any knowledge of *environment liens* or governmental notification relating to past or recurrent violations of environmental laws with respect to the *property* or any facility located on the *property*?		✓		
15a. Has the *owner* or *occupant* of the *property* been informed of the past existence of *hazardous substances* or *petroleum products* with respect to the *property* or any facility located on the *property*?	✓			USE OILS, PAINTS, SOLVENTS COOLANTS, LUBRICANTS.
15b. Has the *owner* or *occupant* of the *property* been informed of the current existence of *hazardous substances* or *petroleum products* with respect to the *property* or any facility located on the *property*?	✓			

Question	Owner/Occupant			Comments
	Yes	No	Unk.	
15c. Has the *owner* or *occupant* of the *property* been informed of the past existence of environmental violations with respect to the *property* or any facility located on the *property*?		✓		
15d. Has the *owner* or *occupant* of the *property* been informed of the current existence of environmental violations with respect to the *property* or any facility located on the *property*?		✓		
16. Does the *owner* or *occupant* of the *property* have any knowledge of any *environmental site assessment* of the *property* or facility that indicated the presence of *hazardous substances* or *petroleum products* on, or contamination of, the *property* or recommended further assessment of the *property*?		✓		
17. Does the *owner* or *occupant* of the *property* know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any *hazardous substance* or *petroleum products* involving the *property* by any owner of occupant of the *property*?		✓		
18a. Does the *property* discharge waste water, on or adjacent to the *property*, other than storm water, into a storm water sewer system?		✓		
18b. Does the *property* discharge waste water, on or adjacent to the *property*, other than storm water, into a sanitary sewer system?		✓		
19. Did you observe or do you have knowledge that any *hazardous substances* or *petroleum products*, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials have been dumped above grade, buried and/or burned on the *property*?		✓		
20. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?			✓	WE ARE CHECKING ON

Comments:

Questionnaire completed by: PHILIP HUMMACHER.

Title: CONTROLLER.

Date: 5-5-99

APPENDIX C

CHEMICAL LIST AND MSDS SHEETS FOR CURRENTLY USED CHEMICALS

Description	MSDS #	1994	1995	1996	1997	1998	1999
DTE Light Lube	LLU 688	165 gal.	385 gal.	110 gal.	550 gal.	385 gal.	165 gal.
Vactra #2	LOI 797	55 gal.	220 gal.	55 gal.	220 gal.	165 gal.	165 gal.
Vactra #4	LLU 686	-	165 gal.	55 gal.	220 gal.	275 gal.	55 gal.
Syntilo 9951 Coolant	LOI 729	165 gal.	550 gal.	165 gal.	660 gal.	440 gal.	220 gal.
Toluene	LSO 733	55 gal.	385 gal.	165 gal.	330 gal.	330 gal.	110 gal.
DTE Heavy Medium Oil	LOI 685	110 gal.	220 gal.	-	275 gal.	220 gal.	110 gal.
DTE Extra Heavy Oil	LOI 798	-	55 gal.	-	-	55 gal.	-
Mobilmet S-122 Soluble Cutting Oil	LFL 565	-	-	-	55 gal.	-	-
Mobilmet Gamma Cutting Oil	LFL 563	-	-	-	-	-	55 gal.
Semi-Cut Coolant	LLU 824	-	-	-	25 gal.	25 gal.	10 gal.

LOI 797 (UPDATE)

MATERIAL SAFETY DATA BULLETIN

MOBIL VACTRA OIL NO. 2

1. PRODUCT AND COMPANY IDENTIFICATION

APPROVAL DATE: 06/29/98

PRODUCT NAME: MOBIL VACTRA OIL NO. 2
SUPPLIER: MOBIL OIL CORP.
NORTH AMERICA MARKETING AND REFINING
3225 GALLOWS RD.
FAIRFAX, VA 22037

24 - Hour Emergency (call collect):	609-737-4411	
Product and MSDS Information:	800-662-4525	609-224-4644
CHEMTREC:	800-424-9300	202-483-7616

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAMES AND SYNONYMS: PET. HYDROCARBONS AND ADDITIVES

INGREDIENTS CONSIDERED HAZARDOUS TO HEALTH:

This product is not formulated to contain ingredients which have exposure limits established by U.S. agencies. It is not hazardous to health as defined by the European Union Dangerous Substances/Preparations Directives. See Section 15 for a regulatory analysis of the ingredients.

See Section 15 for European Label Information.

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.
EFFECTS OF OVEREXPOSURE: No significant effects expected.
EMERGENCY RESPONSE DATA: Brown Liquid. DOT ERG No. - NA

4. FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.

SKIN CONTACT: Wash contact areas with soap and water.

INHALATION: Remove from further exposure. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance and call a physician. If breathing has stopped, use mouth to mouth resuscitation.

INGESTION: Not expected to be a problem when ingested. If uncomfortable seek medical assistance.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None. Flash Point C(F): > 204(399) (ASTM D-92). Flammable limits - LEL: NA, UEL: NA.

NFPA HAZARD ID: Health: 1, Flammability: 1, Reactivity: 0

HAZARDOUS DECOMPOSITION PRODUCTS: Phosphorus oxides. Sulfur oxides. Carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

ENVIRONMENTAL PRECAUTIONS: Prevent spills from entering storm sewers or drains and contact with soil.

PERSONAL PRECAUTIONS: See Section 8

7. HANDLING AND STORAGE

HANDLING: No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.

STORAGE: Do not store in open or unlabelled containers. Store away from strong oxidizing agents or combustible material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: Use in well ventilated area.
RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.
EYE PROTECTION: Normal industrial eye protection practices should be employed.
SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.
EXPOSURE LIMITS: This product does not contain any components which have recognized exposure limits. However, a exposure limit of 5.00 mg/m3 is suggested for oil mist.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical physical properties are given below. Consult Product Data Sheet for specific details.

APPEARANCE: Liquid
COLOR: Brown
ODOR: Mild
ODOR THRESHOLD-ppm: NE
pH: NA
BOILING POINT C(F): > 316(600)
MELTING POINT C(F): NA
FLASH POINT C(F): > 204(399) (ASTM D-92)
FLAMMABILITY: NE
AUTO FLAMMABILITY: NE
EXPLOSIVE PROPERTIES: NA
OXIDIZING PROPERTIES: NA
VAPOR PRESSURE-mmHg 20 C: < 0.1
VAPOR DENSITY: > 2.0
EVAPORATION RATE: NE
RELATIVE DENSITY, 15/4 C: 0.879
SOLUBILITY IN WATER: Negligible
PARTITION COEFFICIENT: NE
VISCOSITY AT 40 C, cSt: > 61.2
VISCOSITY AT 100 C, cSt: 8.6
POUR POINT C(F): < -6(21)
FREEZING POINT C(F): NE
VOC: < 4.00 (Wt. %); 0.293 lbs/gal
NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.): Stable.
CONDITIONS TO AVOID: Extreme heat.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Phosphorus oxides. Sulfur oxides. Carbon monoxide.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL DATA

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.
DERMAL TOXICITY (RABBITS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.
INHALATION TOXICITY (RATS): Not established
EYE IRRITATION (RABBITS): Practically non-irritating. (Draize score: 0 or greater but 6 or less). ---Based on testing of similar products and/or the components.
SKIN IRRITATION (RABBITS): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). ---Based on testing of similar products and/or the components.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Severely solvent refined and severely hydrotreated mineral base oils have been tested at Mobil Environmental and Health Sciences Laboratory by dermal application to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: Not established.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

14. TRANSPORT INFORMATION

USA DOT: NOT REGULATED BY USA DOT.

IMO: NOT REGULATED BY IMO.

IATA: NOT REGULATED BY IATA.

15. REGULATORY INFORMATION

Governmental Inventory Status: All components comply with TSCA and DSL.

EU Labeling: EU labeling not required.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:
This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

This product contains no chemicals reportable under SARA (313) toxic release program.

The following product ingredients are cited on the lists below:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
*** NO REPORTABLE INGREDIENTS ***		

--- REGULATORY LISTS SEARCHED ---

1=ACGIH ALL	6=IARC 1	11=TSCA 4	16=CA P65 CARC	21=LA RTK
2=ACGIH A1	7=IARC 2A	12=TSCA 5a2	17=CA P65 REPRO	22=MI 293
3=ACGIH A2	8=IARC 2B	13=TSCA 5e	18=CA RTK	23=MN RTK
4=NTP CARC	9=OSHA CARC	14=TSCA 6	19=FL RTK	24=NJ RTK
5=NTP SUS	10=OSHA Z	15=TSCA 12b	20=IL RTK	25=PA RTK
				26=RI RTK

Code key: CARC=Carcinogen; SUS=Suspected Carcinogen; REPRO=Reproductive

16. OTHER INFORMATION

USE: WAY OIL

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

Please call the Customer Response Center on 800-662-4525 for formulation disclosure.

****
For Internal Use Only: MHC: 0* 0* NE 0* 1*, MPPEC: A, TRN: 600494-00, GLIS: 400389, CMCS97: 970716, REQ: US - MARKETING, SAFE USE: L
****

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END OF DOCUMENT

LLU 686 (UPDATE)

MATERIAL SAFETY DATA BULLETIN

MOBIL VACTRA OIL NO. 4

1. PRODUCT AND COMPANY IDENTIFICATION

APPROVAL DATE: 06/29/98

PRODUCT NAME: MOBIL VACTRA OIL NO. 4
SUPPLIER: MOBIL OIL CORP.
NORTH AMERICA MARKETING AND REFINING
3225 GALLOWS RD.
FAIRFAX, VA 22037

24 - Hour Emergency (call collect):	609-737-4411	
Product and MSDS Information:	800-662-4525	609-224-4644
CHEMTREC:	800-424-9300	202-483-7616

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAMES AND SYNONYMS: PET. HYDROCARBONS AND ADDITIVES

INGREDIENTS CONSIDERED HAZARDOUS TO HEALTH:

This product is not formulated to contain ingredients which have exposure limits established by U.S. agencies. It is not hazardous to health as defined by the European Union Dangerous Substances/Preparations Directives.. See Section 15 for a regulatory analysis of the ingredients.

See Section 15 for European Label Information.

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.
EFFECTS OF OVEREXPOSURE: No significant effects expected.
EMERGENCY RESPONSE DATA: Brown Liquid. DOT ERG No. - NA

4. FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.
SKIN CONTACT: Wash contact areas with soap and water.
INHALATION: Not expected to be a problem.
INGESTION: Not expected to be a problem when ingested. If uncomfortable seek medical assistance.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None. Flash Point C(F): > 210(410) (ASTM D-92). Flammable limits - LEL: NA, UEL: NA.

NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

ENVIRONMENTAL PRECAUTIONS: Prevent spills from entering storm sewers or drains and contact with soil.

PERSONAL PRECAUTIONS: See Section 8

7. HANDLING AND STORAGE

HANDLING: No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.

STORAGE: Do not store in open or unlabelled containers. Store away from strong oxidizing agents or combustible material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: No special requirements under ordinary conditions of use and with adequate ventilation.

RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.

EYE PROTECTION: Normal industrial eye protection practices should be employed.

SKIN PROTECTION: If prolonged or repeated skin contact is likely, oil impervious gloves should be worn. Good personal hygiene practices should always be followed.

EXPOSURE LIMITS: This product does not contain any components which have recognized exposure limits. However, a exposure limit of 5.00 mg/m3 is suggested for oil mist.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical physical properties are given below. Consult Product Data Sheet for specific details.

APPEARANCE: Liquid
COLOR: Brown
ODOR: Mild
ODOR THRESHOLD-ppm: NE
pH: NA
BOILING POINT C(F): > 316(600)
MELTING POINT C(F): NA
FLASH POINT C(F): > 210(410) (ASTM D-92)
FLAMMABILITY: NE
AUTO FLAMMABILITY: NE
EXPLOSIVE PROPERTIES: NA
OXIDIZING PROPERTIES: NA
VAPOR PRESSURE-mmHg 20 C: < 0.1
VAPOR DENSITY: > 2.0
EVAPORATION RATE: NE
RELATIVE DENSITY, 15/4 C: 0.892
SOLUBILITY IN WATER: Negligible
PARTITION COEFFICIENT: NE
VISCOSITY AT 40 C, cSt: > 198.0
VISCOSITY AT 100 C, cSt: 18.3
POUR POINT C(F): < -3(27)
FREEZING POINT C(F): NE
VOC: < 4.00 (Wt. %); 0.297 lbs/gal
NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.): Stable.
CONDITIONS TO AVOID: Extreme heat.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL DATA

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Not applicable ---Harmful concentrations of mists and/or vapors are unlikely to be encountered through any customary or reasonably foreseeable handling, use, or misuse of this product.

EYE IRRITATION (RABBITS): Practically non-irritating. (Draize score: 0 or greater but 6 or less). ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). ---Based on testing of similar products and/or the components.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Severely solvent refined and severely hydrotreated mineral base oils have been tested at Mobil Environmental and Health Sciences Laboratory by dermal application to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: Not established.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

14. TRANSPORT INFORMATION

USA DOT: NOT REGULATED BY USA DOT.

IMO: NOT REGULATED BY IMO.

IATA: NOT REGULATED BY IATA.

15. REGULATORY INFORMATION

Governmental Inventory Status: All components comply with TSCA and DSL.

EU Labeling: EU labeling not required.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:
This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

This product contains no chemicals reportable under SARA (313) toxic release program.

The following product ingredients are cited on the lists below:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
*** NO REPORTABLE INGREDIENTS ***		

--- REGULATORY LISTS SEARCHED ---

1=ACGIH ALL	6=IARC 1	11=TSCA 4	16=CA P65 CARC	21=LA RTK
2=ACGIH A1	7=IARC 2A	12=TSCA 5a2	17=CA P65 REPRO	22=MI 293
3=ACGIH A2	8=IARC 2B	13=TSCA 5e	18=CA RTK	23=MN RTK
4=NTP CARC	9=OSHA CARC	14=TSCA 6	19=FL RTK	24=NJ RTK
5=NTP SUS	10=OSHA Z	15=TSCA 12b	20=IL RTK	25=PA RTK
				26=RI RTK

Code key: CARC=Carcinogen; SUS=Suspected Carcinogen; REPRO=Reproductive

16. OTHER INFORMATION

USE: WAY OIL

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

Please call the Customer Response Center on 800-662-4525 for formulation disclosure.

****
For Internal Use Only: MHC: 0* 0* NA 0* 1*, MPPEC: A, TRN: 600510-00, GLIS: 400319, CMCS97: 970855, REQ: US - MARKETING, SAFE USE: L
****

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END OF DOCUMENT

Cast 8

(8)

CASTROL INDUSTRIAL INC.

MATERIAL SAFETY DATA SHEET
Emergency Phone No.: (708) 241-4000
Information Phone No.: (708) 241-4000

FIRE 0
HEALTH 1 0 REACTIVITY
0
SPECIAL

I. MATERIAL IDENTIFICATION

PRODUCT TRADE NAME: SYNTILO** 9951
MANUFACTURER: CASTROL INDUSTRIAL INC.

ADDRESS: 1001 WEST 31ST STREET DOWNERS GROVE IL, 60515-1280
MFG. FACILITY ADDRESS:
Preparer: Gary Andrews Preparation Date: 08/30/1993

II. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENTS	%	CAS No.	TLV (ACGIH)	PEL (OSHA)
Ethanol, 2,2',2"-nitrilotris-	10-15	102-71-6	5mg/M3	Not establi
Boron sodium oxide	1-5	1330-43-4	1 mg/M3	10 mg/M3

Contains no other ingredients now known to be hazardous as defined by OSHA 29 CFR 1910.1000 (subpart z) and OSHA CFR 29 1910.1200

III. PHYSICAL PROPERTIES

APPEARANCE & ODOR: Clear, blue fluid; sweet odor
BOILING POINT 'F ('C): 211.96 99.98
MELTING POINT 'F ('C): NA NA
SPECIFIC GRAVITY (H2O=1): 1.051 - 1.057
VAPOR PRESSURE: NA
VAPOR DENSITY (AIR=1): NA
EVAPORATION RATE (BUTYL ACETATE=1): < 1
%VOLATILES BY VOLUME: ca. 60%
VOC: 000.00 g/L 00.000 lbs/gallon
SOLUBILITY IN H2O: Complete
pH AS IS: 8.75 - 9.55
pH (DILUTE): 8.38 - 9.22 @ 5 %

VOC not yet determined for this product.

IV. FIRE AND EXPLOSION HAZARDS

FLASHPOINT (method used)
None 'F None 'C NA
FLAMMABLE LIMITS
LEL NA UEL NA
EXTINGUISHING MEDIA:
Water, dry chemical, CO2, or "alcohol" foam.

SPECIAL FIRE FIGHTING PROCEDURES:
Wear self contained breathing apparatus when fire fighting in a confined space. Cool fire exposed containers with waterspray to prevent rupture.

UNUSUAL FIRE & EXPLOSION HAZARDS:
None known.

CONTAINER HANDLING: DO NOT CUT OR WELD EMPTY DRUMS UNLESS THOROUGHLY CLEANED.

MSDS NUMBER: Syn9951 REVISED: 08/30/19
** Registered in the U.S. Patent & Trademark Office

V. REACTIVITY DATA

ABILITY: Stable- normal conditions
NDITIONS TO AVOID: None known.
INCOMPATIBILITIES: Strong oxidizing agents
HAZARDOUS DECOMPOSITION: Potential combustion products are oxides of carbon, nitrogen, and boron.
HAZARDOUS POLYMERIZATION: Will Not Polymerize

VI. HEALTH HAZARD SUMMARY

ROUTES OF EXPOSURE AND EFFECTS OF OVEREXPOSURE

EYES:

Concentrate may cause eye irritation. Recommended use dilutions (10% or less) are not expected to cause eye irritation.

SKIN ABSORPTION:

Concentrate is not expected to be toxic. LD50 (rabbit) is greater than 2g/kg.

SKIN CONTACT:

Concentrate is not expected to cause skin irritation.

INHALATION:

TLV for product not established. Refer to hazardous ingredients list for any ingredient TLV's. Mists of the concentrate and dilutions may cause respiratory irritation.

INGESTION:

Concentrate is not expected to be toxic. LD50 (rat) is greater than 5.0 g/kg.

CHRONIC EFFECTS:

A review of the literature does not show obvious long term hazard.

THRESHOLD LIMIT VALUE: none established for this product

CONTAINS KNOWN CARCINOGENS: no NTP: no IARC: no OSHA: no

EMERGENCY AND FIRST AID PROCEDURES

EYES:

CONCENTRATE - Immediately flush eyes with plenty of water. Get medical attention if irritation persists.
RECOMMENDED USE DILUTIONS - In case of contact, flush eyes with plenty of water. Get medical attention if irritation occurs.

SKIN:

Wash skin with soap and water. If irritation occurs, get medical attention. Wash clothing before reuse.

INHALATION:

If respiratory discomfort or irritation occurs, move the person to fresh air. See a doctor if discomfort or irritation contir

INGESTION:

Get medical attention immediately.

VII. CONTROL MEASURES

RESPIRATORY PROTECTION:
Good industrial hygiene practices recommend that engineering controls be used to reduce environmental concentrations to the threshold limit value (TLV) or permissible exposure limit (PEL). If any associated TLV or PEL is exceeded, provide NIOSH approved respiratory protection.

GLOVES:
Wear impervious gloves such as rubber if desired.

EYE PROTECTION:
Safety glasses with side shield or chemical goggles.

OTHER:
Impervious protective clothing and chemical resistant safety shoes should be worn to minimize contact. Wash contaminated clothing with soap and water and dry before reuse. Emergency shower and eyewash facility should be provided in all areas in which this product is handled.

VIII. PRECAUTIONS

CONTAINMENT PROCEDURES:
Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Flush residual spill with water. For large spills, dike for later disposal.

WASTE DISPOSAL PROCEDURES:
Dispose of in accordance with local, state and federal regulations. Disposal of this material to the land may be banned by federal law (40 CFR 268).

STORAGE AND HANDLING PROCEDURES:
Avoid breathing mists. Avoid contact with eyes. Wash thoroughly after handling. Do not ingest. Keep drums closed when not in use. Bring product to room temperature before use.

RCRA HAZARDOUS WASTE DESIGNATION:
This product does not fall under current EPA RCRA definitions of hazardous waste.

CERCLA REPORTABLE QUANTITY:
This product does not contain any CERCLA regulated materials.

IX. OTHER HAZARD INFORMATION

This product has been tested using the Federal Hazardous Substances Act (FHSA) guidelines. See Section VI, Health Hazard Summary the results of those tests.

Genetic Toxicology
According to the Ames test, this product did not induce gene mutation in S. typhimurium strains (TA97, TA98, TA100, or TA102) with or without exogenous metabolic activation (S9).

Alkanolamine
This product contains an alkanolamine. In all metalworking fluids containing amines, there is a potential for forming nitrosamines which are animal carcinogens. Therefore, no nitrites or related nitrosating agents should be added to such compositions.

X. ADDITIONAL REGULATORY INFORMATION

OCCUPATIONAL SAFETY and HEALTH ADMINISTRATION (OSHA)
  29 CFR 1910.1200 Hazardous Chemical: yes
SUPERFUND AMENDMENT AND REAUTHORIZATION ACT OF 1986 (SARA)
  Section 302, Extremely Hazardous Substance: no
  Section 311, Hazardous Chemical: yes
  Immediate: yes Delayed: no Fire: no Sudden Release: no Reactive: no
  Section 313, Toxic Chemical: no
TOXIC SUBSTANCES CONTROL ACT (TSCA)
This product is a mixture and is NOT listed in the TSCA Inventory. The individual ingredients in the product are listed in the T Inventory.

DEPARTMENT OF TRANSPORTATION (DOT)
  PROPER SHIPPING NAME : not regulated
  HAZARD CLASS (49 CFR 172.101): not applicable
  HAZARD ID NUMBER: not applicable
FREIGHT CLASS
NMFC 50455, COMPOUNDS OR LUBRICANTS, METAL CUTTING, DRAWING OR DRILLING NOI

REPORT NUMBER: 703
MSDS NO: EQ293165
MAINFRAME UPLOAD DATE: 11/22/96

VAN WATERS & ROGERS INC.
MATERIAL SAFETY DATA SHEET

PAGE: 001

VERSION: 005

PRODUCT: TOLUENE

ORDER NO: 432536
PROD NO : 628751

LSU 733

NELSON DISTRIBUTING
3102 HILL AVENUE

EVERETT ,WA 98206

VAN WATERS & ROGERS INC. , SUBSIDIARY OF UNIVAR (206)889-3400
6100 CARILLON POINT , KIRKLAND , WA 98033

---------- EMERGENCY ASSISTANCE ----------

FOR EMERGENCY ASSISTANCE INVOLVING CHEMICALS CALL - CHEMTREC
(800)424-9300

PRODUCT NAME:
TOLUENE

MSDS #: EQ293165

EFFECTIVE DATE: 11/13/96

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: TOLUENE

SYNONYM: Van-u-Sol

CHEMICAL NAME:
Toluene
108-88-3

CHEMICAL FAMILY:
Aromatic Hydrocarbon

PRODUCT DESCRIPTION:
Aromatic odor.
Clear, colorless liquid.

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

REPORT NUMBER: 703
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MAINFRAME UPLOAD DATE: 11/22/96

VAN WATERS & ROGERS INC.
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VERSION: 005

PRODUCT: TOLUENE

ORDER NO: 432536
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The composition of this mixture may be proprietary information. In the event of a medical emergency, compositional information will be provided to a physician or nurse.

This product is hazardous as defined in 29 CFR1910.1200, based on the following compositional information:

OSHA HAZARD	COMPONENT
Flammable	Toluene
OSHA PEL; ACGIH TLV	Toluene
Eye Irritant	Toluene

SECTION 3 HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYE CONTACT:
Irritating, but does not injure eye tissue.

SKIN CONTACT:
Frequent or prolonged contact may irritate and cause dermatitis. Occasional brief contact with the liquid will not result in significant irritation unless evaporation is impeded. Skin contact may aggravate an existing dermatitis condition.

INHALATION:
High vapor/aerosol concentrations (greater than approximately 1000 ppm) are irritating to the eyes and the respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, central nervous system effects, brain damage and possibly death.

INGESTION:
Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

CHRONIC EFFECTS

WARNING: Concentrated, prolonged or deliberate inhalation of this product ma cause brain and nervous system damage. Prolonged and repeated exposure of pregnant animals to toluene (levels greater than approximately 1500 ppm) has been reported to cause adverse fetal developmental effects.

SECTION 4 FIRST AID MEASURES

EYE CONTACT:
Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

SKIN CONTACT:
Flush with large amounts of water; use soap if available. Remove grossly contaminated clothing, including shoes, and launder before reuse.

INHALATION:
Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.
INGESTION:
If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

SECTION 5 FIRE-FIGHTING MEASURES

FLASHPOINT: 45 Deg F. METHOD: TCC NOTE: Typical
FLAMMABLE LIMITS: LEL: 1.4 UEL: 7.4 @ 77 Deg F. NOTE: Approximate
AUTOIGNITION TEMPERATURE: 1,026 Deg F. NOTE: Approximate
GENERAL HAZARD
Flammable Liquid, can release vapors that form flammable mixtures at temperatures at or above the flashpoint.
Toxic gases will form upon combustion.
Static Discharge, material can accumulate static charges which can cause an incendiary electrical discharge .
"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.
Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

FIRE FIGHTING
Use water spray to cool fire exposed surfaces and to protect personnel.
Shut off "fuel" to fire. If a leak or spill has not ignited, use water spray to disperse the vapors.
Either allow fire to burn under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam.
Respiratory and eye protection required for fire fighting personnel.
Avoid spraying water directly into storage containers due to danger of boilover.
This liquid is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS
Fumes, smoke, and carbon monoxide

SECTION 6 ACCIDENTAL RELEASE MEASURES

LAND SPILL

Eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without hazard. For small spills implement cleanup procedures; for large spills implement cleanup procedures and, if in public area, keep public away and advise authorities. Also, if this product is subject to CERCLA reporting (see Section 7) notify the National Response Center.
Prevent liquid from entering sewers, watercourses, or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust.
Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent.
Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

WATER SPILL
Eliminate sources of ignition. Warn occupants and shipping in surrounding and downwind areas of fire and explosion hazard and request all to stay clear.
Remove from surface by skimming or with suitable adsorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in non-confined waters.
Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

SECTION 7 STORAGE AND HANDLING

ELECTROSTATIC ACCUMULATION HAZARD:
Yes, use proper grounding procedure
STORAGE TEMPERATURE, DEG F:
Ambient
LOADING/UNLOADING TEMPERATURE, DEG F:
Ambient
STORAGE/TRANSPORT PRESSURE, mmHg:
Atmospheric
LOADING/UNLOADING VISCOSITY, cST:
0.7
STORAGE AND HANDLING:
Keep container closed. Handle and open containers with care.
Store in a cool, well ventilated place away from incompatible materials.
Do NOT handle or store near an open flame, heat or other sources of ignition. Protect material from direct sunlight.
Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures.
Do NOT pressurize, cut, heat, or weld containers. Empty product containers may contain product residue. Do NOT reuse empty containers without commercial cleaning or reconditioning.

REPORT NUMBER: 703
MSDS NO: EQ293165
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VAN WATERS & ROGERS INC.
MATERIAL SAFETY DATA SHEET

VERSION: 00

PRODUCT: TOLUENE

ORDER NO: 432536
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SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE CONTROLS

The use of local exhaust ventilation is recommended to control process emissions near the source. Laboratory samples should be stored and handled in a lab hood. Provide mechanical ventilation of confined spaces. See respiratory protection recommendations.
Use explosion-proof ventilation equipment.

PERSONAL PROTECTION

For open systems where contact is likely, wear safety glasses with side shields, long sleeves, and chemical resistant gloves.
Where contact may occur, wear safety glasses with side shields.
Where concentrations in air may exceed the limits given in this Section and engineering, work practice or other means of exposure reduction are not adequate, NIOSH/MSHA approved respirators may be necessary to prevent overexposure by inhalation.

WORKPLACE EXPOSURE GUIDELINES

OSHA REGULATION 29CFR1910.1000 REQUIRES THE FOLLOWING PERMISSIBLE EXPOSURE LIMITS:
A TWA of 100 ppm (375 mg/m3) and a STEL of 150 ppm (560 mg/m3) for Toluene.

The recommended permissible exposure levels indicated above reflect the levels revised by OSHA in 1989 or in subsequent regulatory activity. Although the 1989 levels have since been vacated by the 11th Circuit Court of Appeals, The Vendor recommends that the lower exposure levels be observed as reasonable worker protection.

THE ACGIH RECOMMENDS THE FOLLOWING THRESHOLD LIMIT VALUES:
a TWA of 50 ppm (147 mg/m3) for Toluene (skin).

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

SPECIFIC GRAVITY:	0.87 at 60
SOLUBILITY IN WATER, WT. % AT Deg F:	0.05 at 77 Calculated
VISCOSITY OF LIQUID, CST AT Deg F:	0.7 at 77 Approximate
SP. GRAV. OF VAPOR, at 1 atm (Air=1):	3.20 Calculated
FREEZING/MELTING POINT, Deg F:	Less than -76
EVAPORATION RATE, n-Bu Acetate=1:	2.4 Approximate
BOILING POINT, Deg F:	230 to 232

REPORT NUMBER: 703
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VAN WATERS & ROGERS INC.
MATERIAL SAFETY DATA SHEET

PRODUCT: TOLUENE

ORDER NO: 432536
PROD NO : 628751

SECTION 10 STABILITY AND REACTIVITY

STABILITY:
Stable
HAZARDOUS POLYMERIZATION:
Will not occur
CONDITIONS TO AVOID INSTABILITY:
Not Applicable
MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY:
Strong oxidizing agents, concentrated nitric or sulphuric acid, halogen or molten sulphur.
HAZARDOUS DECOMPOSITION PRODUCTS:
None

SECTION 11 TOXICOLOGICAL INFORMATION

PLEASE CALL THE NON-EMERGENCY TELEPHONE NUMBER ON PAGE 1 IF INFORMATION IS REQUIRED.

SECTION 12 ECOLOGICAL INFORMATION

PLEASE CALL THE NON-EMERGENCY TELEPHONE NUMBER ON PAGE 1 IF INFORMATION IS REQUIRED.

SECTION 13 DISPOSAL CONSIDERATIONS

PLEASE REFER TO SECTIONS 5, 6 AND 15 FOR DISPOSAL AND REGULATORY INFORMATION.

SECTION 14 TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION (DOT):
DOT SHIPPING DESCRIPTION: TOLUENE, 3, UN 1294, II

SECTION 15 REGULATORY INFORMATION

TSCA:
This product is listed on the TSCA Inventory as a LVCB (Unknown, Variable Composition or Biological) Chemical at CAS Registry Number 108-88-3

CERCLA:
If the reportable quantity of this product is accidentally spilled, the incident is subject to the provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and must be reported to the National Response Center by calling 800-424-8802.
The reportable spill quantity of this product is 1,000 pounds.
It contains:
Toluene.

SARA TITLE III:
Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard categories:
Immediate health, Delayed Health, Fire.
This information may be subject to the provisions of the Community Right-to-Know Reporting Requirements (40 CFR 370) if threshold quantity criteria are met.
This product contains the following Section 313 Reportable Ingredients:

COMPONENT	CAS #	MAX. %
Toluene	108-88-3	100.0

CALIFORNIA PROPOSITION 65: This material contains Toluene, a chemical known to the state of California to cause birth defects or other reproductive harm.

SECTION 16 OTHER INFORMATION

HAZARD RATING SYSTEMS:
This information is for people trained in:
National Paint & Coatings Association's (NPCA)
Hazardous Materials Identification System (HMIS)
National Fire Protection Association (NFPA 704)
Identification of the Fire Hazards of Materials

	NPCA-HMIS	NFPA 704
HEALTH	2	2
FLAMMABILITY	3	3
REACTIVITY	0	0

KEY
4 = Severe
3 = Serious
2 = Moderate
1 = Slight
0 = Minimal

REVISION SUMMARY:
This MSDS replaces previously issued MSDS'S and is compliant ANSI Z400.1-1993.

FOR ADDITIONAL INFORMATION

CONTACT: MSDS COORDINATOR VAN WATERS & ROGERS INC.
DURING BUSINESS HOURS, PACIFIC TIME (206)889-3400

12/18/96 06:15 PRODUCT: 628751 CUST NO: 100055 ORDER NO: 432536

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*** END OF MSDS ***

LOI 685 (UPDATE)

MATERIAL SAFETY DATA BULLETIN

MOBIL DTE OIL HEAVY MEDIUM

1. PRODUCT AND COMPANY IDENTIFICATION

APPROVAL DATE: 07/24/98

PRODUCT NAME: MOBIL DTE OIL HEAVY MEDIUM
SUPPLIER: MOBIL OIL CORP.
NORTH AMERICA MARKETING AND REFINING
3225 GALLOWS RD.
FAIRFAX, VA 22037

24 - Hour Emergency (call collect):	609-737-4411	
Product and MSDS Information:	800-662-4525	609-224-4644
CHEMTREC:	800-424-9300	202-483-7616

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAMES AND SYNONYMS: PET. HYDROCARBONS AND ADDITIVES

INGREDIENTS CONSIDERED HAZARDOUS TO HEALTH:

This product is not formulated to contain ingredients which have exposure limits established by U.S. agencies. It is not hazardous to health as defined by the European Union Dangerous Substances/Preparations Directives.. See Section 15 for a regulatory analysis of the ingredients.

See Section 15 for European Label Information.

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.
EFFECTS OF OVEREXPOSURE: No significant effects expected.
EMERGENCY RESPONSE DATA: Amber Liquid. DOT ERG No. - NA

4. FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.
SKIN CONTACT: Wash contact areas with soap and water.
INHALATION: Not expected to be a problem.
INGESTION: Not expected to be a problem. However, if greater than 1/2 liter (pint) ingested, seek medical attention.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None. Flash Point C(F): > 204(400) (ASTM D-92). Flammable limits - LEL: NA, UEL: NA.

NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Elemental oxides.

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

ENVIRONMENTAL PRECAUTIONS: Prevent spills from entering storm sewers or drains and contact with soil.

PERSONAL PRECAUTIONS: See Section 8

7. HANDLING AND STORAGE

HANDLING: No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.

STORAGE: Do not store in open or unlabelled containers. Store away from strong oxidizing agents or combustible material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: No special requirements under ordinary conditions of use and with adequate ventilation.

RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.

EYE PROTECTION: Normal industrial eye protection practices should be employed.

SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.

EXPOSURE LIMITS: This product does not contain any components which have recognized exposure limits. However, a exposure limit of 5.00 mg/m3 is suggested for oil mist.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical physical properties are given below. Consult Product Data Sheet for specific details.

APPEARANCE: Liquid
COLOR: Amber
ODOR: Mild
ODOR THRESHOLD-ppm: NE
pH: NA
BOILING POINT C(F): > 316(600)
MELTING POINT C(F): NA
FLASH POINT C(F): > 204(400) (ASTM D-92)
FLAMMABILITY: NE
AUTO FLAMMABILITY: NE
EXPLOSIVE PROPERTIES: NA
OXIDIZING PROPERTIES: NA
VAPOR PRESSURE-mmHg 20 C: < 0.1
VAPOR DENSITY: > 2.0
EVAPORATION RATE: NE
RELATIVE DENSITY, 15/4 C: 0.88
SOLUBILITY IN WATER: Negligible
PARTITION COEFFICIENT: > 3.5
VISCOSITY AT 40 C, cSt: 68.0
VISCOSITY AT 100 C, cSt: 8.4
POUR POINT C(F): -6(22)
FREEZING POINT C(F): NE
VOLATILE ORGANIC COMPOUND: NA

NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.): Stable.
CONDITIONS TO AVOID: Extreme heat.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Elemental oxides.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL DATA

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Not applicable ---Harmful concentrations of mists and/or vapors are unlikely to be encountered through any customary or reasonably foreseeable handling, use, or misuse of this product.

EYE IRRITATION (RABBITS): Practically non-irritating. (Draize score: 0 or greater but 6 or less). ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): Practically non-irritating. (Primary Irritation Index: 0.5 or less). ---Based on testing of similar products and/or the components.

OTHER ACUTE TOXICITY DATA: The acute toxicological results summarized above are based on testing of representative Mobil products. Representative Mobil formulations have shown no acute effects, administered via the inhalation route, when tested at maximum attainable oil mist or vapor concentrations.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Representative Mobil formulations have been tested at the Mobil Environmental and Health Sciences Laboratory by dermal applications to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations, including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

---REPRODUCTIVE TOXICOLOGY (SUMMARY)---

Dermal exposure of pregnant rats to representative formulations did not cause adverse effects in either the mothers or their offspring.

---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects. These results are confirmed on a continuing basis using various screening methods such as the Mobil Modified Ames Test and IP-346.

---SENSITIZATION (SUMMARY)---

Representative Mobil formulations have not caused skin sensitization in guinea pigs.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: This product is expected to be inherently biodegradable. There is no evidence to suggest bioaccumulation will occur.

Acute LC/EC50 Fish: Juvenile Rainbow Trout: Practically non-toxic ---Based on test

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

14. TRANSPORT INFORMATION

USA DOT: NOT REGULATED BY USA DOT.

RID/ADR: NOT REGULATED BY RID/ADR.

IMO: NOT REGULATED BY IMO.

IATA: NOT REGULATED BY IATA.

15. REGULATORY INFORMATION

Governmental Inventory Status: All components comply with TSCA and DSL.

EU Labeling: EU labeling not required.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:
This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

This product contains no chemicals reportable under SARA (313) toxic release program.

THIS PRODUCT HAS BEEN AUTHORIZED BY USDA FOR USE UNDER THE FOLLOWING CATEGORY: H2 - Lubricants With No Food Contact

The following product ingredients are cited on the lists below:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
TRICRESYL PHOSPHATE (0.05%)	1330-78-5	22
ZINC (ELEMENTAL ANALYSIS) (0.01%)	7440-66-6	22
PHOSPHORODITHOIC ACID, O,O-DI C1-14-ALKYL ESTERS, ZINC SALTS (2: 1) (ZDDP) (0.09%)	68649-42-3	22

--- REGULATORY LISTS SEARCHED ---

1=ACGIH ALL	6=IARC 1	11=TSCA 4	16=CA P65 CARC	21=LA RTK
2=ACGIH A1	7=IARC 2A	12=TSCA 5a2	17=CA P65 REPRO	22=MI 293
3=ACGIH A2	8=IARC 2B	13=TSCA 5e	18=CA RTK	23=MN RTK
4=NTP CARC	9=OSHA CARC	14=TSCA 6	19=FL RTK	24=NJ RTK
5=NTP SUS	10=OSHA Z	15=TSCA 12b	20=IL RTK	25=PA RTK
				26=RI RTK

Code key: CARC=Carcinogen; SUS=Suspected Carcinogen; REPRO=Reproductive

16. OTHER INFORMATION

USE: STEAM TURBINE OIL

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

Please call the Customer Response Center on 800-662-4525 for formulation disclosure.

****
For Internal Use Only: MHC: 1* 1* NA 0* 0*, MPPEC: A, TRN: 600163-00, GLIS: 400304, CMCS97: 970172, REQ: US - MARKETING, SAFE USE: L
****

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END OF DOCUMENT

Mobil

LOI /98

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

********** I. PRODUCT IDENTIFICATION ********** REVISED:12/27/93

MOBIL DTE OIL EXTRA HEAVY

SUPPLIER:
MOBIL OIL CORP.

CHEMICAL NAMES AND SYNONYMS:
PET. HYDROCARBONS AND ADDITIVES

USE OR DESCRIPTION:
LUBRICANT

24-HOUR EMERGENCY (CALL COLLECT):
(609) 737-4411

CHEMTREC:
(800) 424-9300

PRODUCT AND MSDS INFORMATION:
(800) 662-4525

********** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES **********

APPEARANCE: Dark Amber Liquid ODOR: Mild PH: NA
VISCOSITY AT 40 C, CS: > 139.5
VISCOSITY AT 100 C, CS: 14.7
FLASH POINT F(C): > 439(226) (ASTM D-92)
MELTING POINT F(C): NA
BOILING POINT F(C): > 600(316)
RELATIVE DENSITY, 15/4 C: 0.89
VAPOR PRESSURE-mm Hg 20C: < 0.1
POUR POINT F(C): 27(-3)
VOC: < 3.00(Wt. %); 0.215 lbs/gal
SOLUBILITY IN WATER: Negligible

NA=Not Applicable NE=Not Established D=Decomposes
FOR FURTHER INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE.

********** III. POTENTIALLY HAZARDOUS INGREDIENTS **********

None

See Sections XII and XIII for regulatory and further compositional data.

********** IV. HEALTH HAZARD DATA **********
--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---
THRESHOLD LIMIT VALUE: 5.00 mg/m3 Suggested for Oil Mist
EFFECTS OF OVEREXPOSURE: No significant effects expected.

********** V. EMERGENCY AND FIRST AID PROCEDURES **********
--- FOR PRIMARY ROUTES OF ENTRY ---

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.

SKIN CONTACT: Wash contact areas with soap and water. High pressure accidental injection through the skin requires immediate medical attention for possible incision, irrigation and/or debridement.

INHALATION: Not expected to be a problem.

INGESTION: Not expected to be a problem. However, if greater than 1/2 liter(pint) ingested, immediately give 1 to 2 glasses of water and call a physician, hospital emergency room or poison control center for assistance. Do not induce vomiting or give anything by mouth to an unconscious person.

********** VI. FIRE AND EXPLOSION HAZARD DATA **********

FLASH POINT F(C): > 439(226) (ASTM D-92)
FLAMMABLE LIMITS. LEL: 0.6% UEL: 7.0%
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.
SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.
SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None.
NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

********** VII. REACTIVITY DATA **********

STABILITY (Thermal, Light, etc.): Stable
CONDITIONS TO AVOID: Extreme heat.
INCOMPATIBILITY (Materials to Avoid): Strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Metal oxides. Elemental oxides.
HAZARDOUS POLYMERIZATION: Will not occur.

********** VIII. SPILL OR LEAK PROCEDURE **********

ENVIRONMENTAL IMPACT: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

WASTE MANAGEMENT: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

********** IX. SPECIAL PROTECTION INFORMATION **********

EYE PROTECTION: Normal industrial eye protection practices should be employed.
SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.
RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.
VENTILATION: No special requirements under ordinary conditions of use and with adequate ventilation.

********** X. SPECIAL PRECAUTIONS **********

HANDLING: High pressure injection under the skin may occur due to the rupture of pressurized lines. Always seek medical attention.

********** XI. TOXICOLOGICAL DATA **********

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Not applicable ---Harmful concentrations of mists and/or vapors are unlikely to be encountered through any customary or reasonably foreseeable handling, use, or misuse of this product.

EYE IRRITATION (RABBITS): Practically non-irritating. (Draize score: greater than 6 but 15 or less). ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). ---Based on testing of similar products and/or the components.

OTHER ACUTE TOXICITY DATA: The acute toxicological results summarized above are based on testing of representative Mobil products.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Representative Mobil formulations have been tested at the Mobil Environmental and Health Sciences Laboratory by dermal applications to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations, including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

---REPRODUCTIVE TOXICOLOGY (SUMMARY)---

Dermal exposure of pregnant rats to representative formulations did not cause adverse effects in either the mothers or their offspring.

---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects. These results are confirmed on a continuing basis using the Mobil Modified Ames Test.

---SENSITIZATION (SUMMARY)---

Representative Mobil formulations have not caused skin sensitization in guinea pigs.

********** XII. REGULATORY INFORMATION **********

GOVERNMENTAL INVENTORY STATUS: All components comply with TSCA.

Transport Information: Please see Section XIV.

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III: This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None

This product contains no chemicals reportable under SARA (313) toxic release program.

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
ZINC (ELEMENTAL ANALYSIS) (0.08%)	7440-66-6	22
PHOSPHORODITHOIC ACID, O,O-DI C1-14-ALKYL ESTERS, ZINC SALTS (2:1) (ZDDP) (0.45%)	68649-42-3	22
BUTANEDIOIC ACID, POLYISOBUTYENYL DERIVS., REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE, ZINC SALTS (0.32%)	85137-07-1	22

--- REGULATORY LISTS SEARCHED ---

1 = ACGIH ALL	6 = IARC 1	11 = TSCA 4	17 = CA P65	22 = MI 293	
2 = ACGIH A1	7 = IARC 2A	12 = TSCA 5a2	18 = CA RTK	23 = MN RTK	
3 = ACGIH A2	8 = IARC 2B	13 = TSCA 5e	19 = FL RTK	24 = NJ RTK	
4 = NTP CARC	9 = OSHA CARC	14 = TSCA 6	20 = IL RTK	25 = PA RTK	
5 = NTP SUS	10 = OSHA Z	15 = TSCA 12b	21 = LA RTK	26 = RI RTK	

CARC = CARCINOGEN; SUS = SUSPECTED CARCINOGEN

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

********** XIII. INGREDIENTS **********

INGREDIENT DESCRIPTION	PERCENT	CAS NUMBER
CONTAINS TWO OR MORE OF THE FOLLOWING BASE OILS:	> 95.00	
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC		64742-54-7
RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED		64742-62-7
LUBRICATING OILS (PETROLEUM), C>25 HYDROTREATED BRIGHT STOCK-BASED		72623-83-7
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC		64742-65-0
ZINC DITHIOPHOSPHATE	0.48 NJT	800967-5469P

MAY CONTAIN THE FOLLOWING ADDITIVE COMPONENT:
ADDITIVE COMPONENTS:
ZINC CONTAINING ALKYL AMIDES 0.32 NJT 003066009-5099P

********** XIV. TRANSPORT AND LABEL INFORMATION **********

USA DOT: NOT REGULATED BY USA DOT.

IMO: NOT REGULATED BY IMO.

IATA: NOT REGULATED BY IATA.

********** APPENDIX **********
PRECAUTIONARY EEC LABEL TEXT:

* - EC labeling not required.

FOR MOBIL USE ONLY: MHC: 1* 1* NA 1* 1*, MPPEC: A, PPEC:, US93-362
APPROVE CCODE:13 11/17/93 REQ: US - MARKETING

****

****

PREPARED BY: MOBIL OIL CORPORATION
ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT, PRINCETON, NJ
FOR FURTHER INFORMATION, CONTACT:
MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL
3225 GALLOWS ROAD, FAIRFAX, VA 22037 (800) 227-0707 X3255

LFL 565 (UPDATE)

MATERIAL SAFETY DATA BULLETIN

MOBILMET S 122

1. PRODUCT AND COMPANY IDENTIFICATION

APPROVAL DATE: 12/23/97

PRODUCT NAME: MOBILMET S 122
SUPPLIER: MOBIL OIL CORP.
NORTH AMERICA MARKETING AND REFINING
3225 GALLOWS RD.
FAIRFAX, VA 22037

24 - Hour Emergency (call collect):	609-737-4411	
Product and MSDS Information:	800-662-4525	609-224-4644
CHEMTREC:	800-424-9300	202-483-7616

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAMES AND SYNONYMS: PET. HYDROCARBONS AND ADDITIVES

INGREDIENTS CONSIDERED HAZARDOUS TO HEALTH:

This product is not formulated to contain ingredients which have exposure limits established by U.S. agencies. It is not hazardous to health as defined by the European Union Dangerous Substances/Preparations Directives. See Section 15 for a regulatory analysis of the ingredients.

See Section 15 for European Label Information.

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION

US OSHA HAZARD COMMUNICATION STANDARD: This product may be used in certain applications where misting can occur. According to OSHA 29 CFR 1910.1200, certain mineral oil mists may be considered hazardous if the workplace airborne concentration exceeds 5 mg/m3 (ACGIH TLV).

EFFECTS OF OVEREXPOSURE: Nose, throat and lung irritation.

EMERGENCY RESPONSE DATA: Amber Liquid. DOT ERG No. - NA

4. FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.

SKIN CONTACT: Wash contact areas with soap and water.

INHALATION: Remove from further exposure. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance and call a physician. If breathing has stopped, use mouth to mouth resuscitation.

INGESTION: Not expected to be a problem. However, if greater than 1/2 liter(pint) ingested, immediately give 1 to 2 glasses of water and call a physician, hospital emergency room or poison control center for assistance. Do not induce vomiting or give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None. Flash Point C(F): > 149(300) (ASTM D-92). Flammable limits - LEL: NA, UEL: NA.

NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Metal oxides. Sulfur oxides.

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

ENVIRONMENTAL PRECAUTIONS: Prevent spills from entering storm sewers or drains and contact with soil.

PERSONAL PRECAUTIONS: See Section 8

7. HANDLING AND STORAGE

HANDLING: No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.

STORAGE: Do not store in open or unlabelled containers. Store away from strong oxidizing agents or combustible material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: Use local exhaust if oil mists exceed the workplace airborne concentrations of 5mg/m3.

RESPIRATORY PROTECTION: Approved respiratory equipment must be used when airborne concentrations are unknown or exceed the TLV.

EYE PROTECTION: Normal industrial eye protection practices should be employed.

SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.

EXPOSURE LIMITS: This product does not contain any components which have recognized exposure limits. However, a exposure limit of 5.00 mg/m3 is suggested for oil mist.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical physical properties are given below. Consult Product Data Sheet for specific details.

APPEARANCE: Liquid
COLOR: Amber
ODOR: Mild
ODOR THRESHOLD-ppm: NE
pH: NE
BOILING POINT C(F): NE
MELTING POINT C(F): NA
FLASH POINT C(F): > 149(300) (ASTM D-92)
FLAMMABILITY: NE
AUTO FLAMMABILITY: NE
EXPLOSIVE PROPERTIES: NA
OXIDIZING PROPERTIES: NA
VAPOR PRESSURE-mmHg 20 C: NE
VAPOR DENSITY: NE
EVAPORATION RATE: NE
RELATIVE DENSITY, 15/4 C: NE
SOLUBILITY IN WATER: Appreciable
PARTITION COEFFICIENT: NE
VISCOSITY AT 40 C, cSt: NE
VISCOSITY AT 100 C, cSt: NE
POUR POINT C(F): -12(10)
FREEZING POINT C(F): NE
VOLATILE ORGANIC COMPOUND: NE
NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.): Stable.
CONDITIONS TO AVOID: Extreme heat.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Metal oxides. Sulfur oxides.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL DATA

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Not established

EYE IRRITATION (RABBITS): Practically non-irritating. Eye irritation scores: 6.3 at 1 hour, 0.3 at 24 hours, 0 at 48 hours, 0 at 72 hours

SKIN IRRITATION (RABBITS): Practically non-irritating. Primary irritation score: 0.1/8

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Severely solvent refined and severely hydrotreated mineral base oils have been tested at Mobil Environmental and Health Sciences Laboratory by dermal application to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: Not established.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

14. TRANSPORT INFORMATION

USA DOT: NOT REGULATED BY USA DOT.

IMO: NOT REGULATED BY IMO.

IATA: NOT REGULATED BY IATA.

15. REGULATORY INFORMATION

Governmental Inventory Status: All components comply with TSCA and DSL.

EU Labeling:

Symbol: * EU labeling not required..

Risk Phrase(s): R.
NA

Safety Phrase(s): Not applicable.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:
This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

This product contains no chemicals reportable under SARA (313) toxic release program.

The following product ingredients are cited on the lists below:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
Oil Mist, mineral		1,10,20,21,23,24,26

--- REGULATORY LISTS SEARCHED ---

1=ACGIH ALL	6=IARC 1	11=TSCA 4	16=CA P65 CARC	21=LA RTK
2=ACGIH A1	7=IARC 2A	12=TSCA 5a2	17=CA P65 REPRO	22=MI 293
3=ACGIH A2	8=IARC 2B	13=TSCA 5e	18=CA RTK	23=MN RTK
4=NTP CARC	9=OSHA CARC	14=TSCA 6	19=FL RTK	24=NJ RTK
5=NTP SUS	10=OSHA Z	15=TSCA 12b	20=IL RTK	25=PA RTK
				26=RI RTK

Code key: CARC=Carcinogen; SUS=Suspected Carcinogen; REPRO=Reproductive

16. OTHER INFORMATION

Precautionary Label Text:

CAUTION!

EXPOSURE TO GREATER THAN 5MG/M3 OIL MIST MAY CAUSE NOSE, THROAT OR LUNG IRRITATION.

When use conditions are likely to result in excessive misting (greater than 5 mg/m3), provide adequate local ventilation or respiratory protection.

FIRST AID: If irritation occurs, remove to fresh air and get medical attention.

For industrial use only. Not intended or suitable for use in or around a household or dwelling.

Empty container may contain product residue, including flammable or explosive vapors. Do not cut, puncture, or weld on or near container. All label warnings and precautions must be observed until container has been thoroughly cleaned or destroyed.

Refer to product Material Safety Data Bulletin for further safety and health information.

USE: SOLUBLE OIL METAL CUTTING FLUID

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

Please call the Customer Response Center on 800-662-4525 for formulation disclosure.

****

For Internal Use Only: MHC: 1* 1* NE 0 0, MPPEC: A, TRN: 660019-00, CMCS97: 970837, REQ: US - MARKETING, SAFE USE: L

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END OF DOCUMENT

LFL 563 (UPDATE)

MATERIAL SAFETY DATA BULLETIN

MOBILMET GAMMA

1. PRODUCT AND COMPANY IDENTIFICATION

APPROVAL DATE: 04/17/98

PRODUCT NAME: MOBILMET GAMMA
SUPPLIER: MOBIL OIL CORP.
NORTH AMERICA MARKETING AND REFINING
3225 GALLOWS RD.
FAIRFAX, VA 22037

24 - Hour Emergency (call collect):	609-737-4411	
Product and MSDS Information:	800-662-4525	609-224-4644
CHEMTREC:	800-424-9300	202-483-7616

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAMES AND SYNONYMS: PET. HYDROCARBONS AND ADDITIVES

INGREDIENTS CONSIDERED HAZARDOUS TO HEALTH:

Substance Name	Wt%
OILS, LARD, ME ESTERS, SULFURIZED (68440-40-4)	1-5

See Section 15 for European Label Information.

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION

US OSHA HAZARD COMMUNICATION STANDARD: This product may be used in certain applications where misting can occur. According to OSHA 29 CFR 1910.1200, certain mineral oil mists may be considered hazardous if the workplace airborne concentration exceeds 5 mg/m3 (ACGIH TLV).
EFFECTS OF OVEREXPOSURE: No significant effects expected.
EMERGENCY RESPONSE DATA: Brown Liquid. DOT ERG No. - NA

4. FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.

SKIN CONTACT: Wash contact areas with soap and water.

INHALATION: Not expected to be a problem.

INGESTION: Not expected to be a problem. However, if greater than 1/2 liter (pint) ingested, seek medical attention.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None. Flash Point C(F): > 177(350) (ASTM D-93). Flammable limits - LEL: NA, UEL: NA.

NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Metal oxides. Elemental oxides.

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

ENVIRONMENTAL PRECAUTIONS: Prevent spills from entering storm sewers or drains and contact with soil.

PERSONAL PRECAUTIONS: See Section 8

7. HANDLING AND STORAGE

HANDLING: No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.

STORAGE: Do not store in open or unlabelled containers. Store away from strong oxidizing agents or combustible material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: No special requirements under ordinary conditions of use and with adequate ventilation.

RESPIRATORY PROTECTION: Approved respiratory protection equipment must be used when mist concentrations exceed suggested exposure limits.

EYE PROTECTION: Chemical type goggles should be worn during misting operations. Normal industrial eye protection practices should be employed for other use conditions.

SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.

EXPOSURE LIMITS: This product does not contain any components which have recognized exposure limits. However, a exposure limit of 5.00 mg/m3 is suggested for oil mist.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical physical properties are given below. Consult Product Data Sheet for specific details.

APPEARANCE: Liquid
COLOR: Brown
ODOR: Mild
ODOR THRESHOLD-ppm: NE
pH: NA
BOILING POINT C(F): > 316(600)
MELTING POINT C(F): NA
FLASH POINT C(F): > 177(350) (ASTM D-93)
FLAMMABILITY: NE
AUTO FLAMMABILITY: NE
EXPLOSIVE PROPERTIES: NA
OXIDIZING PROPERTIES: NA
VAPOR PRESSURE-mmHg 20 C: < 0.1
VAPOR DENSITY: > 2.0
EVAPORATION RATE: NE
RELATIVE DENSITY, 15/4 C: 0.877
SOLUBILITY IN WATER: Negligible
PARTITION COEFFICIENT: > 3.5
VISCOSITY AT 40 C, cSt: > 32.2
VISCOSITY AT 100 C, cSt: 6.0
POUR POINT C(F): -1(30)
FREEZING POINT C(F): NE
VOLATILE ORGANIC COMPOUND: NA

NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.): Stable.
CONDITIONS TO AVOID: Extreme heat.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Metal oxides. Elemental oxides.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL DATA

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Practically non-toxic (LC50: greater than 5 mg/l). ---Based on testing of similar products and/or the components.

EYE IRRITATION (RABBITS): Practically non-irritating. (Draize score: 0 or greater but 6 or less). ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). ---Based on testing of similar products and/or the components.

OTHER ACUTE TOXICITY DATA: The acute toxicological results summarized above are based on testing of representative Mobil products. ****This mixture or a similar mixture did not result in any fatalities to rats at concentrations (see inhalation toxicity above) substantially higher than the 5 mg/m3 TLV suggested for oil mists. Inhalation of oil mists may cause respiratory system irritation.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Representative Mobil formulations have been tested at the Mobil Environmental and Health Sciences Laboratory by dermal applications to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations, including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects. Dermal application to rats of similar products for 13 weeks did not result in any adverse systemic effects.

---REPRODUCTIVE TOXICOLOGY (SUMMARY)---

Dermal exposure of pregnant rats to representative formulations did not cause adverse effects in either the mothers or their offspring.

---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects. These results are confirmed on a continuing basis using various screening methods such as the Mobil Modified Ames Test and IP-346.

---SENSITIZATION (SUMMARY)---

Representative Mobil formulations have not caused skin sensitization in guinea pigs.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: Not established.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

14. TRANSPORT INFORMATION

USA DOT: NOT REGULATED BY USA DOT.

RID/ADR: NOT REGULATED BY RID/ADR.

IMO: NOT REGULATED BY IMO.

IATA: NOT REGULATED BY IATA.

15. REGULATORY INFORMATION

Governmental Inventory Status: All components comply with TSCA, EINECS/ELINCS, and DSL.

EU Labeling: EU labeling not required.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:
This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

This product contains no chemicals reportable under SARA (313) toxic release program.

The following product ingredients are cited on the lists below:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
SULFUR (ELEMENTAL ANALYSIS)	7704-34-9	19, 25, 26
CHLORINE (ELEMENTAL ANALYSIS) (0.40%)	7782-50-5	22
CHLORO ALKANES (0.95%)	61788-76-9	22

--- REGULATORY LISTS SEARCHED ---

1=ACGIH ALL	6=IARC 1	11=TSCA 4	16=CA P65 CARC	21=LA RTK
2=ACGIH A1	7=IARC 2A	12=TSCA 5a2	17=CA P65 REPRO	22=MI 293
3=ACGIH A2	8=IARC 2B	13=TSCA 5e	18=CA RTK	23=MN RTK
4=NTP CARC	9=OSHA CARC	14=TSCA 6	19=FL RTK	24=NJ RTK
5=NTP SUS	10=OSHA Z	15=TSCA 12b	20=IL RTK	25=PA RTK
				26=RI RTK

Code key: CARC=Carcinogen; SUS=Suspected Carcinogen; REPRO=Reproductive

16. OTHER INFORMATION

Precautionary Label Text:

CAUTION!

EXPOSURE TO GREATER THAN 5MG/M3 OIL MIST MAY CAUSE NOSE, THROAT OR LUNG IRRITATION.

Use adequate ventilation to keep airborne levels below recommended exposure limits.

FIRST AID: If irritation occurs, remove to fresh air and get medical attention.

For industrial use only. Not intended or suitable for use in or around a household or dwelling.

Empty container may contain product residue, including flammable or explosive vapors. Do not cut, puncture, or weld on or near container. All label warnings and precautions must be observed until container has been thoroughly cleaned or destroyed.

Refer to product Material Safety Data Bulletin for further safety and health information.

USE: CUTTING OIL

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

Please call the Customer Response Center on 800-662-4525 for formulation disclosure.

****

For Internal Use Only: MHC: 1* 0* 0* 0* 1*, MPPEC: A, TRN: 665521-00, CMCS97: 971109, REQ: US - MARKETING, SAFE USE: L

****

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END OF DOCUMENT

IPG
INDUSTRIAL PRODUCTS GROUP
A Division of Spartan Chemical Co., Inc.

MATERIAL SAFETY DATA SHEET

*ELU-824

SECTION I: PRODUCT INFORMATION

PRODUCT NAME OR NUMBER (as it appears on label)
SEMICUT

MANUFACTURER'S NAME
IPG INDUSTRIAL PRODUCTS GROUP
A Division of Spartan Chemical Co., Inc.

EMERGENCY TELEPHONE NO.
419/531-5551

ADDRESS (NUMBER, STREET, CITY, STATE AND ZIP CODE)
110 N. Westwood Ave., Toledo, OH 43607

NFPA RATINGS:	HMIS RATINGS:
HEALTH-1 FIRE-0 REACT-0	HEALTH-1 FIRE-0 REACT-0 PERS. PROT.-B

SECTION II: HAZARDOUS INGREDIENTS

CAS REGISTRY NO.	%W	CHEMICAL NAME(S)	TABLE Z-1-A TWA mg/M³	TABLE Z-1-A STEL mg/M³	TABLE Z-1-A CEILING mg/M³	CARCINOGEN
64742-52-5 64742-53-6	5-10	Distilled hydrotreated naphthenic oil	*	—	—	No
102-71-6	1-5	Triethanolamine	5	—	—	No

*If this material is misted, the ACGIH TWA for oil mists of 5 Mg/M³ standard applies. (OSHA Regulation 29CFR 1910.1000)

SECTION III: PHYSICAL DATA

BOILING POINT
212°F, 100°C

VAPOR PRESSURE
18 mm Hg @ 75°F

VAPOR DENSITY (AIR = 1)
Unknown

SOLUBILITY IN WATER
Forms an emulsion

pH
8.8-9.2

SPECIFIC GRAVITY (H_2O = 1)
1.01

EVAPORATION RATE (but. ace. = 1)
<1

APPEARANCE AND ODOR
Clear, light brown liquid

PERCENT SOLID BY WEIGHT
30-32

IS MATERIAL: (LIQUID) SOLID
GAS PASTE POWDER

SECTION IV: FIRE & EXPLOSION HAZARD DATA

FLASH POINT - None to boiling

METHOD USED - ASTM - D56

FLAMMABLE LIMITS - Not established

EXTINGUISHING MEDIA - Foam, dry chemical, CO_2, water fog or spray

SPECIAL FIRE FIGHTING PROCEDURES - Use air supplied breathing equipment for enclosed areas. Avoid breathing vapor or fumes.

UNUSUAL FIRE AND EXPLOSION HAZARDS - Do not mix or store with strong oxidants like liquid chlorine or concentrated oxygen.

SECTION V: HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE - CONDITIONS TO AVOID
May cause eye irritation. Concentrate may cause skin irritation.

THRESHOLD LIMIT VALUE - Not established

PRIMARY ROUTES OF ENTRY INHALATION X SKIN CONTACT X OTHER (SPECIFY) ___

CONDITIONS AGGRAVATED BY USE - Unknown

EMERGENCY AND FIRST AID PROCEDURES - EYES: In case of eye contact, irrigate well with water for at least 15 minutes. Remov contact lenses. If irritated, call physician. SKIN: In case of skin contact (with concentrate), flush well with water. INGESTION: If swallowed, do not induce vomiting. Call a physician.

SECTION VI: REACTIVITY DATA

STABILITY: STABLE X

INCOMPATIBILITY (MATERIALS TO AVOID) - Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS - CO, CO_2, sulfur oxides if burned

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR X

SECTION VII: SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED - Recover free liquid. Add an oil absorbent. Keep petroleum products out of sewers and waterways.

WASTE DISPOSAL METHOD - Assure conformity with applicable disposal regulations. Dispose of absorbed material at an approved waste disposal site or facility.

SECTION VIII: SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE) - Not required unless burned.

LOCAL EXHAUST: Follow ACGIH industrial ventilation recommendations.
MECHANICAL: Recommended. Provide ventilation suitable for type of building structure and work area.

EYE PROTECTION - OSHA approved eye protection for oil.

PROTECTIVE GLOVES - Oil resistant gloves are recommended when handling undiluted concentrate. Protective gloves are recommended for individuals with sensitive skin.

OTHER PROTECTIVE EQUIPMENT - None

SECTION IX: SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING - Do not store near strong oxidants.

OTHER PRECAUTIONS - None

IPG INDUSTRIAL PRODUCTS GROUP
A Division of Spartan Chemical Co., Inc.
SEMICUT
Ref: 29 CFR 1910:1200 (OSHA)

NAME	Thomas J. Mitchell
TITLE	Director of Research
DATE	August 16, 1995
SUPERCEDES	July 12, 1993

LLU 688 (UPDATE)

MATERIAL SAFETY DATA BULLETIN

MOBIL DTE OIL LIGHT

1. PRODUCT AND COMPANY IDENTIFICATION

APPROVAL DATE: 04/15/98

PRODUCT NAME: MOBIL DTE OIL LIGHT
SUPPLIER: MOBIL OIL CORP.
NORTH AMERICA MARKETING AND REFINING
3225 GALLOWS RD.
FAIRFAX, VA 22037

24 - Hour Emergency (call collect):	609-737-4411	
Product and MSDS Information:	800-662-4525	609-224-4644
CHEMTREC:	800-424-9300	202-483-7616

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAMES AND SYNONYMS: PET. HYDROCARBONS AND ADDITIVES

INGREDIENTS CONSIDERED HAZARDOUS TO HEALTH:

This product is not formulated to contain ingredients which have exposure limits established by U.S. agencies. It is not hazardous to health as defined by the European Union Dangerous Substances/Preparations Directives. See Section 15 for a regulatory analysis of the ingredients.

See Section 15 for European Label Information.

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.
EFFECTS OF OVEREXPOSURE: No significant effects expected.
EMERGENCY RESPONSE DATA: Light Amber Liquid. DOT ERG No. - NA

4. FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.
SKIN CONTACT: Wash contact areas with soap and water.
INHALATION: Not expected to be a problem.
INGESTION: Not expected to be a problem. However, if greater than 1/2 liter (pint) ingested, seek medical attention.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None. Flash Point C(F): > 207(405) (ASTM D-92). Flammable limits - LEL: NA, UEL: NA.

NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Elemental oxides.

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

ENVIRONMENTAL PRECAUTIONS: Prevent spills from entering storm sewers or drains and contact with soil.

PERSONAL PRECAUTIONS: See Section 8

7. HANDLING AND STORAGE

HANDLING: No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.

STORAGE: Do not store in open or unlabelled containers. Store away from strong oxidizing agents or combustible material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: No special requirements under ordinary conditions of use and with adequate ventilation.

RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.

EYE PROTECTION: Normal industrial eye protection practices should be employed.

SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.

EXPOSURE LIMITS: This product does not contain any components which have recognized exposure limits. However, a exposure limit of 5.00 mg/m3 is suggested for oil mist.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical physical properties are given below. Consult Product Data Sheet for specific details.

APPEARANCE: Liquid
COLOR: Light Amber
ODOR: Mild
ODOR THRESHOLD-ppm: NE
pH: NA
BOILING POINT C(F): > 316(600)
MELTING POINT C(F): NA
FLASH POINT C(F): > 207(405) (ASTM D-92)
FLAMMABILITY: NE
AUTO FLAMMABILITY: NE
EXPLOSIVE PROPERTIES: NA
OXIDIZING PROPERTIES: NA
VAPOR PRESSURE-mmHg 20 C: < 0.1
VAPOR DENSITY: > 2.0
EVAPORATION RATE: NE
RELATIVE DENSITY, 15/4 C: 0.87
SOLUBILITY IN WATER: Negligible
PARTITION COEFFICIENT: > 3.5
VISCOSITY AT 40 C, cSt: > 28.8
VISCOSITY AT 100 C, cSt: 5.1
POUR POINT C(F): -7(20)
FREEZING POINT C(F): NE
VOLATILE ORGANIC COMPOUND: NA

NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

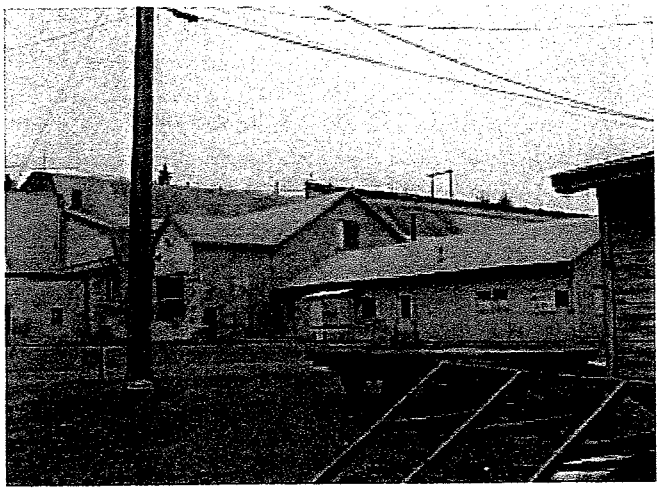
FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

APPENDIX A

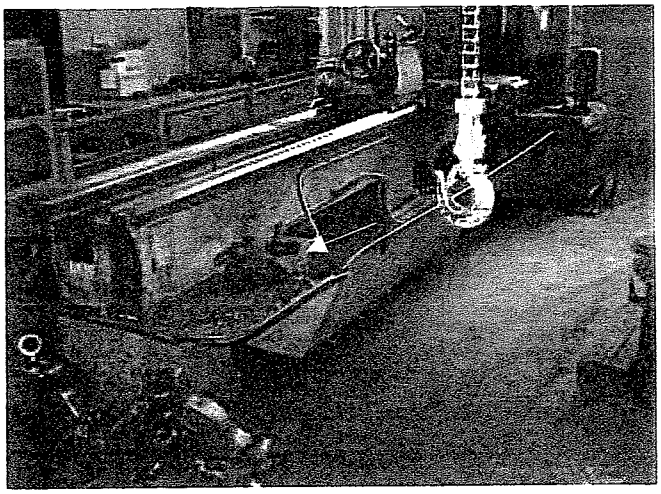
SELECTED SITE PHOTOGRAPHS

Acrowood
ADaPT Job No. S-WA99-2582

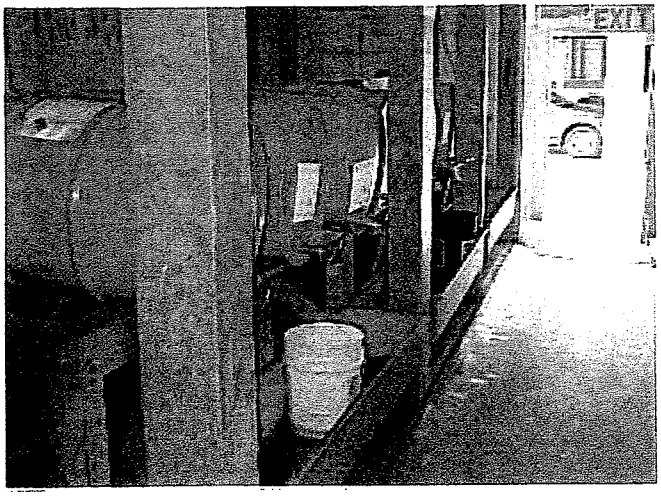
1. View of southeast corner of main building. Paint storage building center left. Compressor room behind red equipment.



2. View of typical machine. Note reservoir pump (arrow). Minor staining visible beneath tray.

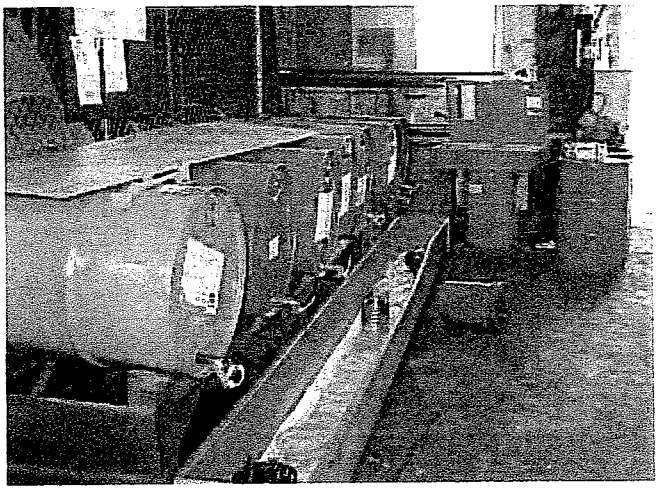


3. New oil dispenser rack with associated drip tray. Some staining beneath drip tray. Area adjacent to the store room.

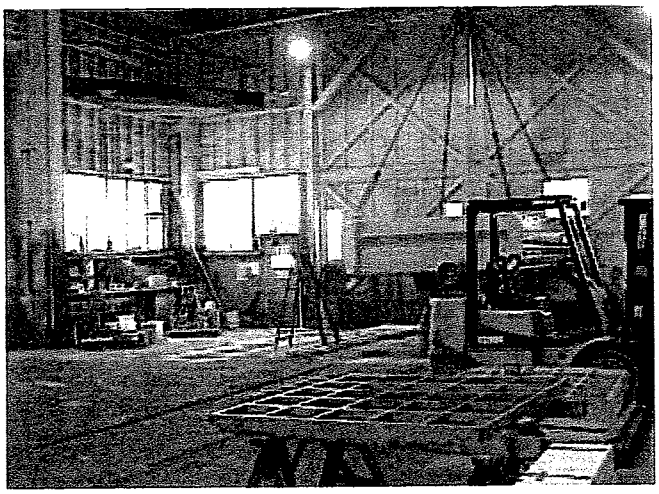


Acrowood
ADaPT Job No. S-WA99-2582

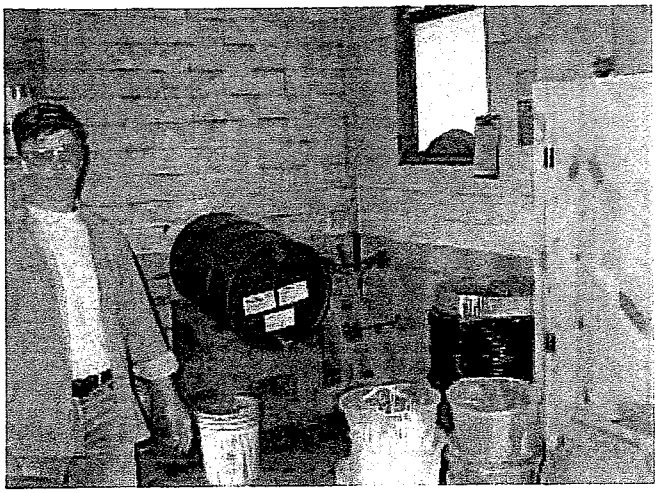
4. New oil dispenser rack with drip tray. Note full drums in background. Area adjacent to the air compressors.



5. Painting area in southern portion of main building.

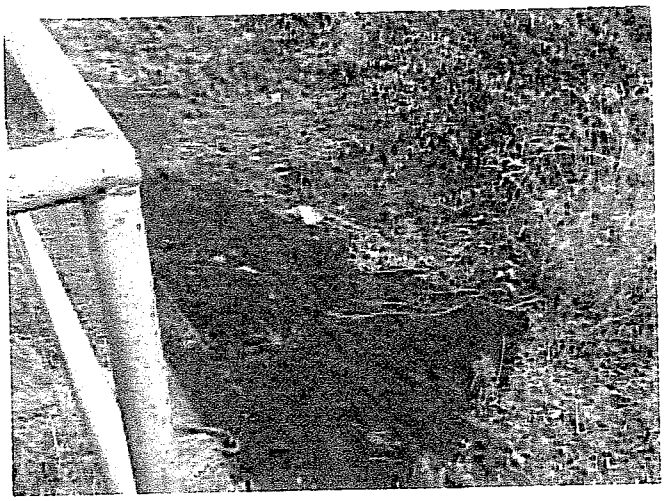


6. Paint storage building. View of toluene drum with spigot (green drum). Drum to the right of toluene drum is used for waste paints and thinners.

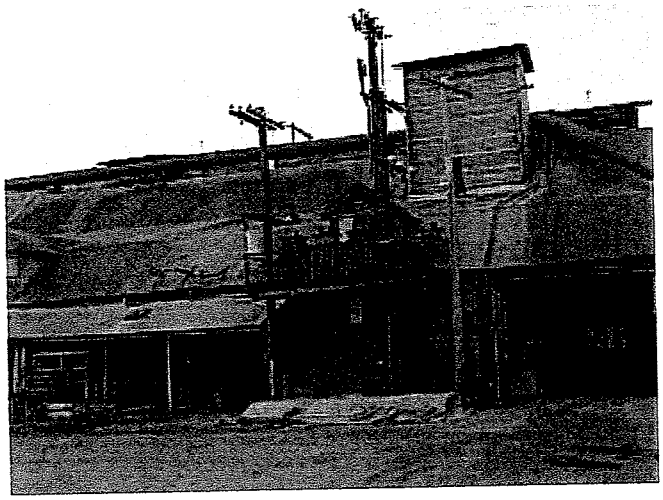


Acrowood
ADaPT Job No. S-WA99-2582

7. View of slag/blast sand disposed of along the eastern edge of the site.



8. View of transformers adjacent to the main building. The three gray transformers are not connected to building. The small light colored is in use.



9. View of drainage pipe. Note metal shavings and light gray stained soil around liquid.

APPENDIX B

COMPLETED ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE

ADaPT Engineering, Inc.
Page i

ENVIRONMENTAL SITE ASSESSMENTS QUESTIONAIRE

Site Description: ACRAWOOD Corporation

Question	Owner/Occupants			Comments
	Yes	No	Unk.	
1a. Is the *property* used for an industrial use?	✓			
1b. Is any *adjoining property* used for an industrial use?	✓			
2a. Did you observe evidence or do you have any prior knowledge that the *property* has been used for an industrial use in the past?	✓			
2b. Did you observe evidence or do you have any prior knowledge that the *adjoining property* has been used for an industrial use in the past?	✓			
3a. Is the *property* used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?		✓		
3b. Is any *adjoining property* used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	✓			Motor Repair, Junk Yard
4a. Did you observe evidence or do you have any prior knowledge that the *property* has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing or recycling facility (if applicable, identify which)?		✓		
4b. Did you observe evidence or do you have any prior knowledge that the any *adjoining property* has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing or recycling facility (if applicable, identify which)?	✓			

Question	Owner/Occupant			Comments
	Yes	No	Unk.	
5a. Are there currently any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of >5 gal (19L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the *property* or at the facility?	✓			
5b. Did you observe evidence or do you have any prior knowledge that there have been previously any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of >5 gal (19L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the *property* or at the facility?	✓			
6a. Are there currently any industrial *drums* (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	✓			
6b. Did you observe evidence or do you have any prior knowledge that there have there been previously, any industrial *drums* (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	✓			
7a. Did you observe evidence or do you have any prior knowledge that *fill dirt* has been brought onto the property that originated from a contaminated site?		✓		
7b. Did you observe evidence or do you have any prior knowledge that *fill dirt* has been brought onto the property that is of an unknown origin?		✓		
8a. Are there currently any *pits, ponds,* or *lagoons* located on the *property* in connection with waste treatment or waste disposal?		✓		
8b. Did you observe evidence or do you have any prior knowledge that there have been previously, any *pits, ponds,* or *lagoons* located on the *property* in connection with waste treatment or waste disposal?		✓		
9a. Is there currently any stained soil on the *property*?			✓	WHAT DOES STAIN MEAN
9b. Did you observe evidence or do you have any prior knowledge that there has been previously, any stained soil on the *property*?			✓	WHAT DOES STAIN MEAN
10a. Are there currently any registered or unregistered storage tanks (above or underground) located on the *property*?		✓		
10b. Did you observe evidence or do you have any prior knowledge that there have been previously, any registered or unregistered storage tanks (above or underground) located on the *property*?	✓			GAS TANK TAKEN OUT IN THE 1970'S.

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.): Stable.
CONDITIONS TO AVOID: Extreme heat.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Elemental oxides.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL DATA

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Not applicable ---Harmful concentrations of mists and/or vapors are unlikely to be encountered through any customary or reasonably foreseeable handling, use, or misuse of this product.

EYE IRRITATION (RABBITS): Practically non-irritating. (Draize score: 0 or greater but 6 or less). ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): Practically non-irritating. (Primary Irritation Index: 0.5 or less). ---Based on testing of similar products and/or the components.

OTHER ACUTE TOXICITY DATA: The acute toxicological results summarized above are based on testing of representative Mobil products. Representative Mobil formulations have shown no acute effects, administered via the inhalation route, when tested at maximum attainable oil mist or vapor concentrations.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Representative Mobil formulations have been tested at the Mobil Environmental and Health Sciences Laboratory by dermal applications to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations, including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

---REPRODUCTIVE TOXICOLOGY (SUMMARY)---

Dermal exposure of pregnant rats to representative formulations did not cause adverse effects in either the mothers or their offspring.

---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects. These results are confirmed on a continuing basis using various screening methods such as the Mobil Modified Ames Test and IP-346.

---SENSITIZATION (SUMMARY)---

Representative Mobil formulations have not caused skin sensitization in guinea pigs.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: This product is expected to be inherently biodegradable. There is no evidence to suggest bioaccumulation will occur.

Acute LC/EC50 Fish: Juvenile Rainbow Trout: Practically non-toxic ---Based on test

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

14. TRANSPORT INFORMATION

USA DOT: NOT REGULATED BY USA DOT.

RID/ADR: NOT REGULATED BY RID/ADR.

IMO: NOT REGULATED BY IMO.

IATA: NOT REGULATED BY IATA.

15. REGULATORY INFORMATION

Governmental Inventory Status: All components comply with TSCA and DSL.

EU Labeling: EU labeling not required.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:
This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

This product contains no chemicals reportable under SARA (313) toxic release program.

THIS PRODUCT HAS BEEN AUTHORIZED BY USDA FOR USE UNDER THE FOLLOWING CATEGORY: H2 - Lubricants With No Food Contact

The following product ingredients are cited on the lists below:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
TRICRESYL PHOSPHATE (0.05%)	1330-78-5	22
PHOSPHORODITHOIC ACID, O,O-DI C1-14-ALKYL ESTERS, ZINC SALTS (2: 1) (ZDDP) (0.07%)	68649-42-3	22

--- REGULATORY LISTS SEARCHED ---

1=ACGIH ALL	6=IARC 1	11=TSCA 4	16=CA P65 CARC	21=LA RTK
2=ACGIH A1	7=IARC 2A	12=TSCA 5a2	17=CA P65 REPRO	22=MI 293
3=ACGIH A2	8=IARC 2B	13=TSCA 5e	18=CA RTK	23=MN RTK
4=NTP CARC	9=OSHA CARC	14=TSCA 6	19=FL RTK	24=NJ RTK
5=NTP SUS	10=OSHA Z	15=TSCA 12b	20=IL RTK	25=PA RTK
				26=RI RTK

Code key: CARC=Carcinogen; SUS=Suspected Carcinogen; REPRO=Reproductive

16. OTHER INFORMATION

USE: LUBRICANT

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

Please call the Customer Response Center on 800-662-4525 for formulation disclosure.

****
For Internal Use Only: MHC: 1* 1* NA 0* 0*, MPPEC: A, TRN: 600148-00, GLIS: 400297, CMCS97: 970294, REQ: US - MARKETING, SAFE USE: L
****

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END OF DOCUMENT

APPENDIX D

WASTE NOTIFICATION DOCUMENTS (19932-1998)

WASHINGTON STATE DEPARTMENT OF ECOLOGY

WASHINGTON STATE
DEPARTMENT OF ECOLOGY

Attn: DW Notifications
M/S PV-11
Olympia, WA 98504-8711
(206) 459-6387

DEPARTMENTAL USE ONLY

W A

RCV'D

LOG

REVIEW

G/WAC

FORM 2

NOTIFICATION OF DANGEROUS WASTE ACTIVITIES

1. ☒ A. FIRST NOTIFICATION (No previous application has been made for this site)

☐ B. REVISED NOTIFICATION DATE (Enter existing site I.D. No. in Part 1F. List sections you revised)

☐ C. WITHDRAW SITE I.D. NO. DATE (Complete Sections 1F, 2-8 & 13. Enter existing I.D. No. in Part 1F)

☐ D. REACTIVATE SITE I.D. NO. (Complete all sections of the form. Enter previously assigned I.D. No. in Part 1F.)

☐ E. CANCEL SITE I.D. NO. DATE (Site closed—no longer own or conduct business at this site. Complete Sections 1F, 2-8 & 13. Enter existing I.D. No. in 1F)

☐ F. EXISTING I.D. NO. (Complete for items 1B, C, D & E only) W A

2.A. WASHINGTON STATE DEPARTMENT OF REVENUE REGISTRATION (TAX) NUMBER: 600-537-730

2.B. SIC CODE(S) PRIMARY: 3599 SECONDARY: OTHER:

2.C. TYPE OF BUSINESS CONDUCTED AT THIS SITE: Machinery Mfgr's for pulp/sawmills

3. NAME OF INSTALLATION: ACROWOOD CORPORATION

4. LOCATION OF INSTALLATION

Street: 4425 SOUTH 3RD AVENUE

County Name: SNOHOMISH

City or Town: EVERETT State: WA ZIP Code: 98203-2515

5. INSTALLATION MAILING ADDRESS

Street or P.O. Box: PO BOX 1028

City or Town: EVERETT State: WA ZIP Code: 98206-1028

6.A. INSTALLATION CONTACT

Name (last): JUREY (first): BETTY

Job Title: BUYER Phone Number: 206-258-3555

6.B. INSTALLATION CONTACT MAILING ADDRESS (see instructions) BOX 1 ☐ BOX 2 ☒

Street or P.O. Box:

City or Town: State: ZIP Code:

7.A. NAME OF INSTALLATION'S LEGAL OWNER: FARHANG JAVID

Street, P.O. Box, or Route Number: 4425 SOUTH 3RD AVENUE

City or Town: EVERETT State: WA ZIP Code: 98203-2515

7.B. PROPERTY OWNERSHIP (Provide address in section 12 if different than 7A.): FARHANG JAVID

7.C. OWNER TYPE	7.D. PROPERTY TYPE
P	P

ECL (Rev. 4/91) - 1518- 3

ATTACH SITE LOCATION MAP

8.A. NAME OF INSTALLATION (Same as item No. 3) ACROWOOD CORPORATION 8.B. EPA I.D. NO. _____

9. TYPES OF REGULATED DANGEROUS WASTE ACTIVITIES YOUR BUSINESS IS CONDUCTING (Read & follow instructions for this section carefully—Enter an "X" in any sections of 9.A., 9.B., or 9.C. below that may apply).

9.A. HAZARDOUS WASTE ACTIVITIES (See instructions for definitions of these activities).

[X] 1. GENERATOR ☐ 1a. Conduct on-site recycling

☐ 2. TRANSPORTER 2a. ☐ Transport Wastes Commercially (for hire).
2b. Modes of Transport: (1) ☐ Highway (2) ☐ Air (3) ☐ Rail (4) ☐ Water (5) ☐ Other (Specify in comments)

☐ 3. MANAGEMENT FACILITY (TSD) 3a. ☐ Facility accepts wastes from OFF-SITE Generators.
3b. Process conducted or available at this facility;
(1) ☐ Treatment (2) ☐ Storage (3) ☐ Disposal
(4) ☐ Other (specify in comments).
3c. Current Part A ____/____/____
Part B Process ☐ Yes ☐ No

☐ 4. IMMEDIATE RECYCLER

☐ 5. PERMIT-BY-RULE FACILITY

☐ 6. MARKET OR BURN DANGEROUS WASTE FUELS— 6a. ☐ Generator Marketing to Burner 6b. ☐ Other Marketer
6c. ☐ Burner. (COMPLETE 9c.—TYPE OF COMBUSTION DEVICE)

9.B. USED-OIL FUEL ACTIVITIES.

☐ 1. OFF-SPECIFICATION USED-OIL FUELS-1a. ☐ Generator Marketing to Burner 1b. ☐ Other Marketer 1c. ☐ Burner (Complete 9c.)

☐ 2. SPECIFICATION USED-OIL FUEL MARKETER (or ON-SITE BURNER) WHO FIRST CLAIMS THE OIL MEETS THE SPECIFICATION.

9.C. DANGEROUS WASTE OR OFF-SPECIFICATION USED-OIL FUEL BURNING: TYPE OF COMBUSTION DEVICE.

(see instructions for definitions of combustion devices) 1. ☐ Utility Boiler 2. ☐ Industrial Boiler 3. ☐ Industrial Furnace.

10. WASTE IDENTIFICATION (Copy this page if you have more than 5 waste streams—other information (sections 9 and 11-13) not needed on continuation sheets)

A. LINE NUMBER	B. DESCRIPTION OF WASTE(S)	C. DANGEROUS WASTE NUMBER	D. ESTIMATED OR ACTUAL ANNUAL WASTE QUANTITY	E. WEIGHT CODE
1	Waste Petroleum Naptha	D001 D018 D039 WP02	2500	P
2	Waste Paint & Paint related waste	F003 F005	2500	P

11. Complete a, b, or c; AND d below.

11.A. ☐ (Batch Frequency _____) QUANTITY WEIGHT CODE

11.B. [X] PER MONTH QUANTITY 200 WEIGHT P CODE

11.C. ☐ ONE-TIME-ONLY QUANTITY WEIGHT CODE

11.D. AMOUNT TO BE ACCUMULATED ON-SITE PRIOR TO SHIPMENT QUANTITY 3000 WEIGHT P CODE

12. COMMENTS

13. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE	NAME AND OFFICIAL TITLE (type or print)	DATE SIGNED
X Farhang Javid	Farhang Javid, President	June 11, 92

ECL 28 — 1518

RETAIN A COPY FOR YOUR FILES

Form 4 1993 GENERATOR ANNUAL DANGEROUS WASTE REPORT 1993 Form 4

PLEASE PRINT OR TYPE — Blue or Black Ink Only — (Form designed for use on Elite (12 pitch) typewriter) Use spacebar between each character

WAD 988 507 885 A F4 93
0000
ACROWOOD CORP

PO BOX 1028
EVERETT WA 98206

SEND TO: Washington State Department of Ecology
Hazardous Waste Information
Post Office Box 47658
Olympia, WA 98504-7658

Assistance:
1-800-874-2022
(206) 407-6170 (Voice)
(206) 407-6006 (TDD)

DATE RECEIVED

Init. _____ Date _____
Init. _____ Date _____
Revision ☐ Pages _____
Init. _____ Date _____
Keypunched ☐
Init. _____ Date _____
Verified _____ Date _____
Batch No. _____
☐A ☐B ☐C
FOR ECOLOGY USE ONLY

DUE DATE: Postmarked
No Later Than
MARCH 1, 1994

WASHINGTON STATE DEPARTMENT OF ECOLOGY

1. EPA/STATE HAZARDOUS WASTE SITE IDENTIFICATION NUMBER (See Page 5): WAD985078585

2. COMPANY NAME (See Page 5): ACROWOOD CORPORATION

3. SITE CONTACT PERSON, AND TITLE (See Page 5): LAST: JUREY; FIRST: BETTY; TITLE: SAFETY DIR.
PHONE NUMBER: 206-258-3555 ext. 217

4. SITE CONTACT MAILING ADDRESS (See Page 5)
SUITE, APARTMENT NUMBER, ETC.:
P.O. BOX OR STREET: PO BOX 1028
CITY: EVERETT STATE: WA ZIP: 98206-1028

5. SITE LOCATION ADDRESS (See Page 5)
P.O. BOX OR STREET: 4425 SOUTH 3RD AVENUE
CITY: EVERETT STATE: WA ZIP: 98203-2515

6. SITE LOCATION COUNTY (See Page 5): SNOHOMISH

7. WASHINGTON DEPT. OF REVENUE SALES TAX REGISTRATION NUMBER (UBI NUMBER) (See Page 6): 600-537-731

8. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES (See Page 6): PRIMARY 3599; SECONDARY; OTHER

9. SITE EMPLOYMENT ON DECEMBER 31, 1993 (See Page 6): 66

10. REPORTING EXCEPTIONS (See Page 6): A. ; B. ; C. ; D. X 208 lbs. ; E.

11. CERTIFICATION — I certify that under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (See Page 7)

BETTY JUREY
PRINT OR TYPE NAME

Betty Jurey
SIGNATURE (must be in ink)

February 28, 1994
DATE SIGNED

ECY 28B (10/93) Form 4 Frame

Form 4 1993 GENERATOR ANNUAL DANGEROUS WASTE REPORT 1993 Form 4

12. YOUR EPA/STATE I.D. NUMBER: WAD988507885

13. RECEIVING FACILITY (TSD) See Page 8
EPA STATE I.D. NUMBER: TXD077603371
NAME: SAFETY KLEEN CORP.
ADDRESS: 1722 COOPER CREEK ROAD
City: DENTON State: TX ZIP: 76208

14. TRANSPORTER See Page 8
EPA STATE I.D. NUMBER: WAD000071204 2
NAME: SAFETY KLEEN CORP.
ADDRESS: 6303 212TH ST., SW, SUITE B
City: LYNNWOOD State: WA ZIP: 98036

15. WASTE IDENTIFICATION

LINE	A. Manifest Document Number (See Page 9)	B. Manifest Shipment Date (MM DD YY) (See Page 9)	C. Status (See P. 9)	D. Physical State S=Solid L=Liquid G=Sludge M=Compressed Gas (See Page 10)	E. Chemical Nature O=Organic I=Inorganic (See P. 10)	F. Waste Description (See Page 10)	G. Dangerous Waste Number (see instructions and WAC 173-303) (See Page 11)	H. Waste Designation D=DW E=EHW (See P. 12)	I. Weight of Waste (See Page 12)	J. WEIGHT CODE (See P. 12)	K. Recycling Credit % (See P 12)	L. For TSD Facility Use Only (See P 13)
1	32701	010493		L	O	Mineral Spirits, xylene, tetrachloroethylene (<70mg\L), 1-1-1 trichloroethane (>1%), toluene, ethyl benzene.	D010 D039 F001 F003 F005 WP02	E	140.7	P	95	
2							WC02					
3	66270	022293		L	O	Mineral Spirits, xylene, tetrachloroethylene (<70mg\L), 1-1-1 trichloroethane (>1%), toluene, ethyl benzene.	D010 D039 F001 F003 F005 WP02	E	207.7	P	95	
4							WC02					
5	00038	032393		L	O	Paint waste, M.E.K. = 2.8%, toluene = 12%, xylene = 11.6%, the balance of this waste stream is medium boiling aliphatic hydrocarbons.	F003 D001 F005 D035 WT02	D	204.0	P		
6	43069	042293		L	O	Mineral spirits, xylene, tetrachloroethylene (<70mg\L), 1-1-1 trichloroethane (>1%), toluene, ethyl benzene.	D010 D039 F001 F003 F005 WP02	E	140.7	P	95	
7							WC02					
8	99995	061493		L	O	Mineral spirits, xylene, tetrachloroethylene (<70mg\L), 1-1-1 trichloroethane (>1%), toluene, ethyl benzene.	D010 D039 F001 F003 F005 WP02	E	140.7	P	95	
9							WC02					
10												

16. COMMENTS (Enter information by section and/or line number—see page 13.)

Form 4 1993 GENERATOR ANNUAL DANGEROUS WASTE REPORT 1993 Form 4

12. YOUR EPA/STATE I.D. NUMBER: WAD988507885

13. RECEIVING FACILITY (TSD) See Page 8
EPA/STATE I.D. NUMBER: TXD077760337 1
NAME: SAFETY KLEEN CORP.
ADDRESS: 1722 COOPER CREEK ROAD
City: DENTON State: TX ZIP: 76208

14. TRANSPORTER See Page 8
EPA STATE I.D. NUMBER: WAD000710204 2
NAME: SAFETY KLEEN CORP.
ADDRESS: 6303 212TH ST., SW, SUITE B
City: LYNNWOOD State: WA ZIP: 98036

15. WASTE IDENTIFICATION

LINE	A. Manifest Document Number (See Page 9)	B. Manifest Shipment Date (MM DD YY) (See Page 9)	C. Status (See P. 9)	D. Physical State S=Solid L=Liquid G=Sludge M=Compressed Gas (See Page 10)	E. Chemical Nature O=Organic I=Inorganic (See P. 10)	F. Waste Description (See Page 10)	G. Dangerous Waste Number (see instructions and WAC 173-303) (See Page 11)	H. Waste Designation D=DW E=EHW (See P. 12)	I. Weight of Waste (See Page 12)	J. WEIGHT CODE (See P. 12)	K. Recycling Credit % (See P. 12)	L. For TSD Facility Use Only (See P. 13)
1	55721	080993		L	O	Mineral Spirits, xylene, tetrachloroethylene (<70mg\L), 1-1-1 trichloroethane (>1%), toluene, ethyl benzene.	D001 D039 F001 F003 F005 WP02	E	140.7	P	95	
2							WC02					
3	61272	090893		L	O	Paint waste, M.E.K. = 2.8%, toluene = 12%, xylene = 11.6%, the balance of this waste stream is medium boiling aliphatic hydrocarbons.	F003 D001 F005 D035 WT02	D	200.0	P		
4	08858	100193		L	O	Mineral spirits, xylene, tetrachloroethylene (<70mg\L), 1-1-1 trichloroethane (>1%), toluene, ethyl benzene.	D001 D039 F001 F003 F005 WP02	E	140.7	P	95	
5							WC02					
6	57827	120193		L	O	Mineral spirits, xylene, tetrachloroethylene (<70mg\L), 1-1-1 trichloroethane (>1%), toluene, ethyl benzene.	D001 D039 F001 F003 F005 WP02	E	127.3	P	95	
7							WC02					
8												
9												
10												

16. COMMENTS (Enter information by section and/or line number—see page 13.)

PLEASE PRINT OR TYPE — Blue or Black Ink Only — (Form designed for use on Elite (12 pitch) typewriter) Use spacebar between each character

1994

WAD 988 507 885 A F4 94
0000 601163770
ACROWOOD CORP

PO BOX 1023
EVERETT WA 98206

SEND TO: Washington State Department of Ecology
Hazardous Waste Information
Post Office Box 47658
Olympia, WA 98504-7658

Assistance:
1-800-874-2022
(206) 407-6170 (Voice)
(206) 407-6006 (TDD)

DATE RECEIVED

Init. _____ Date _____
Init. _____ Date _____

Revision ☐ Pages _____
Init. _____ Date _____

Keypunched ☐
Init. _____ Date _____

Verified _____ Date _____
Batch No. _____
☐A ☐B ☐C

FOR ECOLOGY USE ONLY

DUE DATE: Postmarked
No Later Than
MARCH 1, 1995

WASHINGTON STATE DEPARTMENT OF ECOLOGY

1. EPA/STATE HAZARDOUS WASTE SITE IDENTIFICATION NUMBER (See Page 5): WAD988507885

2. COMPANY NAME (See Page 5): Acrowood Corp

3. SITE CONTACT PERSON, AND TITLE (See Page 5): LAST Jurey FIRST Betty TITLE Buyer
PHONE NUMBER: 206 - 258 - 3555 ext. 217

4. SITE CONTACT MAILING ADDRESS (See Page 5)
SUITE, APARTMENT NUMBER, ETC.:
P.O. BOX OR STREET ADDRESS: PO Box 11028
CITY: Everett STATE: WA ZIP: 98206 - 1028

5. SITE LOCATION ADDRESS (See Page 5)
STREET ADDRESS OR LEGAL DESCRIPTION: 4425 South 3rd Avenue
CITY: Everett STATE: WA ZIP: 98203 - 2515

6. SITE LOCATION COUNTY (See Page 5): Snohomish

7. WASHINGTON DEPT. OF REVENUE SALES TAX REGISTRATION NUMBER (UBI NUMBER) (See Page 6): 601 - 537 - 730

8. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES (See Page 6): PRIMARY 3599 SECONDARY OTHER

9. SITE EMPLOYMENT ON DECEMBER 31, 1994 (See Page 6): 65

10. REPORTING EXCEPTIONS (See Page 6): A. B. C. D. X 2,07, lbs. E.

11. CERTIFICATION — I certify that under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (See Page 7)

Betty Jurey — PRINT OR TYPE NAME
Betty Jurey — SIGNATURE (must be in ink)
Feb. 23, 1995 — DATE SIGNED

ECY 288 (09/94) Form 4 Frame

Form 4 1994 GENERATOR ANNUAL DANGEROUS WASTE REPORT 1994 Form 4

12. YOUR EPA/STATE I.D. NUMBER: WAD988505078851

13. RECEIVING FACILITY (TSD) — See Page 8 — EPA/STATE I.D. NUMBER: TXD077610337 1
NAME: Safery Kleen Corp
ADDRESS: 1722 Cooper Creek Road
City: Denton State: TX ZIP: 76208

14. TRANSPORTER — See Page 8 — EPA/STATE I.D. NUMBER: WAD000071204 2
NAME: Safety Kleen Corp
ADDRESS: 6303 212th St. SW Suite B
City: Lynnwood State: WA ZIP: 98036

15. WASTE IDENTIFICATION

LINE	A. Manifest Document Number (See Page 9)	B. Manifest Shipment Date (MM DD YY) (See Page 9)	C. Status (See P. 9)	D. Physical State S=Solid L=Liquid G=Sludge M=Compressed Gas (See Page 10)	E. Chemical Nature O=Organic I=Inorganic (See P. 10)	F. Waste Description (See Page 10)	G. Dangerous Waste Number (see Instructions and WAC 173-303) (See Page 11)	H. Waste Destination D=DW E=EHW (See P. 12)	I. Weight of Waste (See Page 12)	J. WEIGHT CODE (See P. 12)	K. Recycling Credit % (See P. 14)	L. For TSD Facility Use Only (See P. 13)
1	01664	012794		L	O	Mineral spirits, xylene, tetrachloroethylene, (<70mg\L), 1-1-1 trichloroethane (>1%), toluene, ethyl benzene	D001 D018 D039 WC02 F001 F003	E	134.0	P	95%	
2							F005 WP02					
3	27690	021694		L	O	Paint waste, M.E.K. = 2.8%, toluene = 12%, xylene = 11.6%, the balance of this waste stream is medium boiling aliphatic hydrocarbons.	F003 D001 F005 D035 WT02	D	408.0	P		
4												
5	24780	032494		L	O	Mineral spirits, xylene, tetrachloroethylene, (<70 mg\L), 1-1-1 trichlorethane (>1%), toluene, ethyl benzene	D001 D018 D039 WC02 F001 F003	E	127.3	P	95%	
6							F005 WP02					
7	39362	052094		L	O	Mineral spirits, xylene, tetrachloroethylene, (<70 mg\L), 1-1-1 trichloroethane (>1%), toluene, ethyl benzene	D001 D018 D039 WC02 F001 F003	E	127.3	P	95%	
8							F005 WP02					
9	31574	080194		L	O	Paint waste, M.E.K. = 2.8%, toluene = 12%, xylene = 11.6%, the balance of this waste stream is medium boiling aliphatic hydrocarbons.	F003 D001 F005 D035	D	408.0	P	95%	
10												

16. COMMENTS (Enter information by section and/or line number—see page 13.)

Form 4 1994 GENERATOR ANNUAL DANGEROUS WASTE REPORT 1994 Form 4

12. YOUR EPA/STATE I.D. NUMBER: WAD988505078885

13. RECEIVING FACILITY (TSD) See Page 8
EPA/STATE I.D. NUMBER: TXD077603371
NAME: Safety Kleen Corp.
ADDRESS: 1722 Cooper Creek Road
City: Denton, State: TX, ZIP: 76208

14. TRANSPORTER See Page 8
EPA/STATE I.D. NUMBER: WAD000071204 2
NAME: Safety Kleen Corp.
ADDRESS: 6303 212th Street SW Suite B
City: Lynnwood, State: WA, ZIP: 98036

15. WASTE IDENTIFICATION

LINE	A. Manifest Document Number (See Page 9)	B. Manifest Shipment Date (MM DD YY) (See Page 9)	C. Status (See P. 9)	D. Physical State S=Solid L=Liquid G=Sludge M=Compressed Gas (See Page 10)	E. Chemical Nature O=Organic I=Inorganic (See P. 10)	F. Waste Description (See Page 10)	G. Dangerous Waste Number (see instructions and WAC 173-303) (See Page 11)	H. Waste Designation D=DW E=EHW (See P. 12)	I. Weight of Waste (See Page 12)	J. WEIGHT CODE (See P. 12)	K. Recycling Credit % (See P. 14)	L. For TSD Facility Use Only (See P. 13)
1	43304	072194		L	O	Mineral spirits, xylene, tetrachloroethylene, (<70 mg\L), 1-1-1 trichloroethane (>1%), toluene, ethyl benzene.	D001 D018 D039 WC02 F001 F003	E	134.0	P	95%	
2							F005 WP02					
3	21092	090894		L	O	Mineral spirits, xylene, tetrachloroethylene, (<70 mg\L), 1-1-1 trichloroethane (>1%), toluene, ethyl benzene.	D001 D018 D039 WC02 F001 F003	E	134.0	P	95%	
4							F005 WP02					
5	90955	110294		L	O	Mineral spirits, xylene, tetrachloroethylene, (<70 mg\L), 1-1-1 trichloroethane (>1%), toluene, ethyl benzene.	D001 D018 D039 WC02 F001 F003	E	127.3	P	95%	
6							F005 WP02					
7	47218	110494		L	)	Paint waste, M.E.K. = 2.8%, toluene = 12%, xylene = 11.6%, the balance of this waste stream is medium boiling aliphatic hydrocarbons.	F003 D001 F005 D035 WT02	D	408.0	P		
8												
9												
10												

16. COMMENTS (Enter information by section and/or line number—see page 13.)

GENERAL SITE INFORMATION FORM ANSWERS

PLEASE ENTER:

EPA/State ID number: WAD988507885

Site name: Acrowood Corp.

FOR ECOLOGY USE ONLY:

Date received: _____

A. Site Information

A-1. What is your EPA/State ID Number?

WA D 9 8 8 5 0 7 8 8 5

A-2. What is the name of this site (i.e., the company/agency to which the EPA/State ID Number is assigned)? If your company has more than one site by the same name in Washington, provide a site identifier here (e.g., ACME-Everett v. ACME-Auburn). _____

Acrowood Corp.

A-3. What is your Washington Department of Revenue Tax Registration Account Number (also known as the United Business Identifier—UBI)?

6 0 0 - 5 3 7 - 7 3 0

(Please enter the nine digits only; do not enter any letters preceding the number. This number is assigned to your business's Tax Registration Account by the Department of Revenue. Contact your fiscal office or the Department of Revenue if you do not know your registration number. Do **not** use your federal tax number here. If you are a tax-exempt agency, enter "NA" in the first two spaces and leave the other spaces blank; the Department of Revenue will construct a number for you for dangerous waste fee purposes only, and Ecology will maintain records of that number internally.)

For the name and address information requested below, if you need to repeat a particular name or address for more than one question, you may simply specify "Same as question XX" (e.g., if the location address in question A-5 is the same as the mailing address in question A-4, write "Same as A-4" in the space for question A-5).

Please read questions A-4 through A-11 *before* completing any of the information. This will help you avoid having to correct portions of the form. Do *not* leave any of the following questions *blank*—you must at least write "Same as..." on the first line of each question.

A-4. What is the mailing address for the company/agency? (i.e., where should Ecology send future form packets and correspondence?)

Street Address or PO Box P.O. Box 1028

City, State Zip Code Everett WA 98206-1028

A-5. What is the location address of the company/agency at this site? (i.e., enter the street addi geographic location. If a street address is not available, please provide nearby cross-streets for re erenc you may also use Township, Section, and Range information. Do not provide PO Box or rural r ail r address.)

Street Address 4425 S. 3rd Avenue

City, State, Zip Code Everett WA 98203-2515

County Snohomish

A-6. Who is the legal owner of the company/agency? (Please provide information regarding the pers company, or agency that owns this business.)

Name Farhang Javid

Street Address or PO Box P O Box 1028

City, State, Zip Code Everett WA 98206-1028

County Snohomish

Phone (206) 258-3555

A-7. Has the owner of the company/agency changed since you last reported?

☒ No (If no, skip to A-8.) ☐ Yes (If yes, answer A-7.a.)

A-7.a. Please provide the date on which the ownership chang

(mm/dd/yy) __ __ /__ __ /__ __

If the ownership of the business has changed since you last reported a Notification Form (Form 2) or the Annual Report forms, you will be required to complete a new Notification Form. Please call Ecology at 206/407-6737.

A-8. Who is the operator of the company/agency responsible for the dangerous waste handling activity? (Please provide information regarding the company or agency responsible for the overall operation of this business.)

Name same as A-6.

Street Address or PO Box

City, State, Zip Code

County

Phone (____)

PLEASE ENTER:

EPA/State ID number: WAD988507885

Site name: Acrowood Corp.

A-9. Who owns the property (real estate) on which the company/agency is located? (Please provide information regarding the person, company, or agency that owns this property.)

Name and Title same as A-6 President/CEO

Street Address or PO Box

City, State, Zip Code

County

Phone ( )

A-10. Whom should Ecology contact on-site regarding site visits and inspections of the company/agency? (If the individual whom Ecology should contact is not located on-site, enter the correct address and phone number for that individual's location.)

Name and Title Robert Felix, Manager of Manufacturing

Street Address or PO Box same as A-6

City, State, Zip Code

County

Phone ( )

A-11. Whom should Ecology contact if clarification is needed on this form?

Name and Title Betty Jurey, Safety Director

Street Address or PO Box same as A-6

City, State, Zip Code

County

Phone ( )

A-12. Please enter the four-digit Standard Industrial Classification (SIC) code that best describes the principal products or services rendered at this site. (If more than one code applies, please enter the primary SIC code—the code that *best* describes your business's products or services—in the space for the primary number below. This is the SIC code under which your business is registered with the Washington Department of Revenue. You may list up to three other relevant SIC codes in the additional spaces below. A list of SIC codes can be found on pages 27-38 of *Book 2: Guidebook and Codes*.

1. 3599 (primary) **2.** ____ **3.** ____ **4.** ____

B. Site Dangerous Waste Activity Information

B-1. Did the company/agency generate dangerous waste in 1995?

☐ No (If no, answer **B-1.b.**) ☒ Yes (If yes, answer **B-1.a.**)

B-1.a. What is your generator status? (Check one box. If you not sure of your generator status, refer to Worksheet #1 beginning o page 7.)

☐ Large Quantity Generator (proceed to **B-2**)

☒ Medium Quantity Generator (proceed to **B-2**)

☐ Small Quantity Generator: Maximum accumulation or mont generation quantity: _____ pounds

*(NOTE: Small Quantity Generators who are not required to report f reasons—e.g., because they are a TSDR—now may skip to the Certifi on page 21 and return **only** this GSI Form to Ecology. SQGs are **not** required to provide any additional information on this or any other An Report form.)*

B-1.b. If the company/agency did NOT generate dangerous waste in 1995, please indicat the reason(s) below. (Check all reasons that apply.)

☐ We never generated dangerous waste.

☐ We generate dangerous waste only occasionally and did not generate waste in 19

☐ We are a dangerous waste transporter only.

☐ We have gone out of business. Date closed: (mm/dd/yy) __/__/__

☐ The waste we generate is exempt from state and federal dangerous waste regulat

☐ Other (please specify): _____

1995 GSI

PLEASE ENTER:

EPA/State ID number: WAD988507885

Site name: Acrowood Corp.

B-2. Does the company/agency treat, store, recycle, or dispose of dangerous waste? (This does **not** include treatment-by-generator activity and permit-by-rule activity [see the Definitions section of *Book 2: Guidebook and Codes*]. Information on treatment-by-generator and permit-by-rule activity will be captured in the GM Form for those generators conducting on-site treatment activities. Generators conducting either permit-by-rule or treatment-by-generator activity but no other treatment, storage, recycling, or disposal activity should answer "No" to this question.)

☐ Yes (If yes, answer **B-2.a.**) ☒ No
(If no, LQGs should skip to **Section C**, below. All other sites should skip to **Section D, Comments**, on page 20, if appropriate; otherwise, skip to the Certification on page 21.)

B-2.a. Is the company/agency exempt from reporting its dangerous waste treatment, storage, recycling, and disposal activities?

☐ Yes (If yes, specify one of the following.) ☐ No (If no, skip to **Section C**.)

- ☐ We manage only exempt wastes.
- ☐ We closed prior to 1995; no dangerous waste treatment, storage, recycling, or disposal activities occurred during 1995.
- ☐ We did not treat, pre-treat, store, recycle, or dispose of dangerous waste during 1995.
- ☐ Other (please specify). _____

C. Site-Wide Waste Minimization Activity Information

COMPLETE THIS SECTION ONLY FOR ODD (e.g. 1995, 1997) REPORTING YEARS.

LQGs and TSDRs must complete this section. If you are not an LQG or a TSDR, proceed to Section D, Comments (page 20), if appropriate, or to the Certification (page 21).

Ecology is required by EPA to collect the following information every other year (biennially, during the odd reporting years—e.g., 1995, 1997). These questions **replace** the EPA Waste Minimization Report that you have received in the past from EPA. Ecology recognizes the limitations of the waste minimization questions contained in this form and in the GM Form and is collecting this information solely for provision to EPA as per EPA requirements. As a matter of policy in the State of Washington, Ecology will rely on the Pollution Prevention Plan and Progress Reports for information through which to analyze businesses' pollution prevention and waste minimization efforts. Please refer to the definitions of **source reduction** and **recycling** (see the Definitions section of *Book 2: Guidebook and Codes*) to help you complete this section.

These questions refer to **site-wide** waste minimization activities. The questions on the GM Form are **waste stream-specific.**

C-1. Did this company/agency begin or expand a *source reduction* activity during 1994 or 1995?

☐ Yes ☐ No

C-2. Did this company/agency begin or expand a *recycling* activity during 1994 or 1995?

☐ Yes ☐ No

C-3. Did this company/agency systematically investigate opportunities for *source reduction or recycling* during 1994 or 1995?

☐ Yes ☐ No

D. Comments

Use this section to provide any additional comments, information, or explanation, if necessary. In yo comments, **always** provide the reference to the specific question number (e.g., A-7).

Acrowood Corporation became a Medium Quantity Generator for the year 1995 because of a one-time "house-cleaning" project. We are striving to be a Small Quantity Generator for the years 1996 and beyond, as we have been i the past.

GENERATION AND MANAGEMENT FORM
ANSWER SHEET

Please enter your EPA/State ID number and site name at right, before making as many two-sided copies of this answer sheet as you will need to report all of your waste streams. Then complete one answer sheet for each waste stream.

PLEASE ENTER:

EPA/State ID number: WAD988507885

Site name: Acrowood Corp.

FOR ECOLOGY USE ONLY:

Date received: _____

A. Description of Dangerous Waste Stream

A-1. 823

A-2. Parts Washer Solvent

A-3. D001 D006 D008 D018 D039 _____

A-4. WP01 WT02 see comments

A-5. ☒ EHW ☐ DW

A-6. ☒ No ☐ Yes

A-7. A 19

A-8. B 211

A-9. ☒ i ☐ *ii* ☐ *iii* ☐ *iv* ☐ *v* (If ***v***, answer **A-9.a.**)

A-9.a. M _____

B. Waste Management Activities

B-1. 971.5 ☐ ST ☐ MT ☒ P ☐ K ☐ G ☐ L ☐ C (If **G**, **L**, or **C**, answer **B-1.a.**)

B-1.a. 6.7 ☐ Lbs/gal ☒ Specific Gravity ☐ Lbs/yd³

B-2. ☐ On-site ☒ Off-site ☐ Both

B-3. _____ M _____

B-3a. ☐ Yes ☐ No ☐ DK

B-3b. ☐ Yes ☐ No ☐ DK

B-4. *i.* Receiving Facility ID	*ii.* System Code	*iii.* Quantity	*iv.* Recycling Percent
ORD981766124	M 141	971.5	95
	M		
	M		
	M		

B-5. If additional space is required, use continuation sheet on the following page.

i. Date Shipped (mm/dd)	*ii* . Manifest Document Number	*iii.* Internal Tracking Code (optional)	*iv.* Receiving Facility EPA/State ID	v. Quantity Shipped

B-6. ☐ Yes ☐ No

C. Waste Minimization Activities

C-1. W _____ W _____ W _____ W _____ | **C-2.** ☐ Yes ☐ No

C-3. _____ | **C-4.** _____

D. Comments

Ref. A-4. Additional codes, WC02, F001, F003, F005

GENERATION AND MANAGEMENT FORM
ANSWER SHEET

Please enter your EPA State ID number and site name at right, before making as many two-sided copies of this answer sheet as you will need to report all of your waste streams. Then complete one answer sheet for each waste stream.

PLEASE ENTER:

EPA/State ID number: WAD983507885

Site name: Acrowood Corp.

FOR ECOLOGY USE ONLY:

Date received: _____

A. Description of Dangerous Waste Stream

A-1. 1166

A-2. Waste Paint

A-3. F003 D001 _____ _____ _____ _____ **A-4.** WT02 _____

A-5. ☐ EHW ☒ DW **A-6.** ☒ No ☐ Yes **A-7.** A 21

A-8. B 209 **A-9.** ☒ i ☐ *ii* ☐ *iii* ☐ *iv* ☐ *v* (If *v*, answer **A-9.a.**)

A-9.a. M _____

B. Waste Management Activities

B-1. 2040.0 ☐ ST ☐ MT ☒ P ☐ K ☐ G ☐ L ☐ C (If **G**, **L**, or **C**, answer **B-1.a.**)

B-1.a. 9.28 ☐ Lbs/gal ☒ Specific Gravity ☐ Lbs/yd³

B-2. ☐ On-site ☒ Off-site ☐ Both

B-3. _____ _____ M _____ **B-3a.** ☐ Yes ☐ No ☐ DK **B-3b.** ☐ Yes ☐ No ☐ DK

B-4. *i.* Receiving Facility ID	*ii.* System Code	*iii.* Quantity	*iv.* Recycling Percent
TXD07763371	M 141	2040.0	Ø
_____	M _____	_____	_____
_____	M _____	_____	_____
_____	M _____	_____	_____

B-5. If additional space is required, use continuation sheet on the following page.

i. Date Shipped (mm/dd)	*ii.* Manifest Document Number	*iii.* Internal Tracking Code (optional)	*iv.* Receiving Facility EPA/State ID	v. Quantity

1995 GM

B-6. ☐ Yes ☐ No

C. Waste Minimization Activities

C-1. W _____ W _____ W _____ W _____

C-2. ☐ Yes ☐ No

C-3. _____

C-4. _____

D. Comments

No additional comments.

Page 10

OFF-SITE IDENTIFICATION INFORMATION FORM
ANSWER SHEET

Please enter your EPA/State ID number and site name at right, before making as many copies of this two-sided answer sheet as you will need.

PLEASE ENTER:

EPA/State ID number: WAD988507885

Site name: Acrowood Corp.

FOR ECOLOGY USE ONLY:

Date received:

Please complete this form if your facility received dangerous waste from off-site or shipped dangerous waste off-site during 1995.

EPA ID Number: ILD984903202

Name: Safety Kleen Corp.

Address: 6303 212th Street SW

Lynnwood WA 98036

Handler type: (Check all that apply.) ☐ Generator ☒ Transporter ☐ TSDR

EPA ID Number: ORD981766624

Name: Safety Kleen Corp.

Address: 16350 SE 130th Avenue Bldg. B

Clackamus, OR 97015

Handler type: (Check all that apply.) ☐ Generator ☐ Transporter ☒ TSDR

EPA ID Number: TXD077633771

Name: Safety Kleen Corp.

Address: 17 Cooper Creek Road

Denton TX 76208

Handler type: (Check all that apply.) ☐ Generator ☐ Transporter ☒ TSDR

Comments:

EPA ID Number: UID981552425

Name: S L T Express

Address: 1900 S. Industrial Road
Salt Lake City UT 84104

Handler type: (Check all that apply.) ☐ Generator ☒ Transporter ☐ TSDR

EPA ID Number:

Name:

Address:

Handler type: (Check all that apply.) ☐ Generator ☐ Transporter ☐ TSDR

EPA ID Number:

Name:

Address:

Handler type: (Check all that apply.) ☐ Generator ☐ Transporter ☐ TSDR

EPA ID Number:

Name:

Address:

Handler type: (Check all that apply.) ☐ Generator ☐ Transporter ☐ TSDR

EPA ID Number:

Name:

Address:

Handler type: (Check all that apply.) ☐ Generator ☐ Transporter ☐ TSDR

EPA ID Number:

Name:

Address:

Handler type: (Check all that apply.) ☐ Generator ☐ Transporter ☐ TSDR

1995 01

PLEASE ENTER:

EPA/State ID number: WAD988507885

Site name: Acrowood Corp.

Certification

Upon completion of *all* required forms, please provide the following information. First mark which form(s) you are submitting in this package. Then indicate the total number of pages in your submittal.

☒ General Site Information Form

☒ Generation and Management Form

☒ Off-Site Identification Information Form

14 Total number of pages submitted *[Refer to the instructions "Page numbering your submittal" (page 4) for instructions on how to number the pages of your submission. After you compile and manually number all of the pages of your submittal including the "last page" on page 45, enter in the space provided the total number of pages being submitted. Then complete and sign the Certification below.]*

The following must be signed by an authorized representative of the company/agency. This certification language is required under EPA's Biennial Report. Ecology is required to implement reporting requirements at least as stringent as those in that report.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature (in ink) Betty Jurey

Name (print/type) Betty Jurey

Date February 28, 1996

Title Safety Director

END OF REPORT
(Attach this page as the last page of your submission.)

Dangerous Waste Annual Report Verification Form - 1996

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Washington State Department of Ecology
Hazardous Waste Information
P. O. Box 47658
Olympia, WA 98504-7658
(800) 874-2022 (within state)
(360) 407-6170

For Ecology Use Only
Date Received :

Form	Review	Data Entry	Verification
VF			
GM			
WR			
OI			

RCRA Site ID: **WAD 988 507 885**
Company Name: **Acrowood Corp**
Site Location: **4425 S 3RD AVE**
City: **EVERETT, WA 98203-2515** County: **SNOHOMISH**
Dept. of Revenue Tax Registration Number: ~~600-537-730~~ 601-163-770 SIC : **3599**
Current company name if different from above: _____

Did the ownership of this company change in 1996?

NO [X]
YES [ ] Date: [ ]

If yes, provide new owner information in 2b. below.

Verify information shown in the left column, and make corrections and/or additions in the right column. If the box on the left is blank, please fill in the box on the right.

1a The mailing address for this site is:

Name: Acrowood Corp
Address: P.O. Box 1028
Everett, WA 98206-1028

1b

Name: _____
Address: _____

2a The company/agency owner of this site is:

Name: Farhang Javid
Address: P.O. Box 1028
Everett, WA 98206-1028
Phone: (206) 258-3555

2b

Name: _____
Address: _____
Phone: _____

3a The property owner of this site is:

Name: Farhang Javid
Address: P.O. Box 1028
Everett, WA 98206-1028
Phone: (206) 258-3555

3b

Name: _____
Address: _____
Phone: _____

4a The contact for site visits and inspections is:

Name: Robert Felix
Address: P.O. Box 1028
Everett, WA 98206-1028
Phone: (206) 258-3555

4b

Name: _____
Address: _____
Phone: _____

5a The contact for annual report forms is:

Name: Betty Jurey
Address: P.O. Box 1028
Everett, WA 98206-1028
Phone: (206) 258-3555

5b

Name: _____
Address: _____
Phone: _____

6159585

Hazardous Waste Generator Status:

Acrowood Corp last reported in 1995 as a MQG.

Indicate the facility's generator status for 1996 by checking the appropriate boxes:

Generator Status

- ___ Large Quantity Generator (LQG)
- ___ Medium Quantity Generator (MQG)
- X Small Quantity Generator (SQG)
- ___ No regulated dangerous waste generated

Transportation Activity

- ___ Transporter for your own waste
- ___ Transporter for commercial purposes

Treatment, Storage, Disposal, Recycling (TSDR) Facility

- ___ For waste generated at this facility
- ___ For waste generated by other facilities

7. Report Summary

Please check off which additional forms are included in this report, if any, and provide the total number of pages.

- ___ Generation and Management (GM) Form
- ___ Off-site Identification Information (OI) Form
- ___ Waste Received (WR) Form

1 Total Number of pages submitted

8. Comments

9. Certification

The following must be signed by authorized representative of the company/agency. This certification language is required under EPA's Biennial Report. Ecology is required to implement reporting requirements at least as stringent as those in that report.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possiblity of fine and imprisonment for knowing violations.

Signature (in ink) Betty Jurey

Name (print/type) Betty Jurey

Date February 28, 1997

Title Safety Director

If you have special accomodation needs or require this document in an alternative format, please contact the Hazardous Waste and Toxics Reduction Program at (360) 407-6700 (voice) or (360) 407-6006 (TDD).

Dangerous Waste Annual Report Verification Form 1997

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Washington State Department of Ecology
Hazardous Waste Information
P. O. Box 47658
Olympia, WA 98504-7658
(800) 874-2022 (within state)
(360) 407-6170

For Ecology Use Only - Date Received :

Form	Review	Data Entry	Verification
VF			
GM			
WR			
OI			

RCRA Site ID: **WAD 988 507 885**
Company Name: **Acrowood Corp**
Site Location: **4425 S 3RD AVE**
City/State/Zip: **EVERETT, WA 98203-2515** County: **SNOHOMISH**
Dept. of Revenue Tax Registration Number: SIC : **3599**
Current company name if different from above: _____

This Report is Due No Later Than March 2, 1998

Please fill in any corrected information on the right hand column.

1a The mailing address for this site is:

Name: Acrowood Corp
Address: PO BOX 1028
Everett, WA 98206-1028

1b

Name:
Address:

2a The legal company/agency owner of this site is:

Name: Farhang Javid
Address: PO BOX 1028
Everett, WA 98206-1028
Phone: (425) 258-3555 Ext:

2b

Name:
Address:
Phone: Ext:

Did the ownership of this site change in 1997?
__ Yes Date: _____ X No

I represent the __ Current Owner __ Previous Owner
This report covers waste activity for:
__ Entire year __ My term of ownership only

3a The land owner of this site is:

Name: Farhang Javid
Address: PO BOX 1028
Everett, WA 98206-1028
Phone: (425) 258-3555 Ext:

3b

Name:
Address:
Phone: Ext:

4a The contact for site visits and inspections is:

Name/Title: Robert Felix
Mail Address: PO BOX 1028
Everett, WA 98206-1028
Phone: (425) 258-3555 Ext:

4b

Name/Title:
Address:
Phone: Ext: 367

5a The contact for annual report forms is:

Name/Title: Betty Jurey
Mail Address: PO BOX 1028
Everett, WA 98206-1028
Phone: (425) 258-3555 Ext:

5b

Name/Title:
Address:
Phone: Ext: 217

22755667

6. Last Reported Hazardous Waste Generator Status: SMALL QUANTITY GENERATOR (SQG)

Indicate the facility's generator status for 1997 by checking the appropriate boxes below. If the status has changed since last reported (above), please use the Comments section (#8, below) to explain.

6a. Generator Status

- ☐ Large Quantity Generator (LQG)
- ☐ Medium Quantity Generator (MQG)
- ☒ Small Quantity Generator (SQG)
- ☐ No regulated dangerous waste generated

6b. Transportation Activity (requires prior notification)

- ☐ Transporter for your own waste
- ☐ Transporter for commercial purposes

6c. Treatment, Storage, Disposal, Recycling (TSDR) Facility (Requires Permit)

- ☐ For waste generated at this facility
- ☐ For waste generated by other facilities

7. Report Summary

Please check off which forms are included in this report, if any, and provide the total number of pages. For electronic data submittal, please indicate method of your submission.

Paper Form Submittal

- ☐ Generation and Management (GM) Form
- ☐ Off-site Identification Information (OI) Form
- ☐ Waste Received (WR) Form
- 2 Total Number of pages submitted

Electronic Data Submittal

- ☐ Disk(s) included
- ☐ Data submitted on Internet

8. Comments

9. Certification

The following must be signed by authorized representative of the company/agency. This certification language is required under EPA's Biennial Report. Ecology is required to implement reporting requirements at least as stringent as those in that report.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possiblity of fine and imprisonment for knowing violations.

Signature (in ink) Betty Jurey

Name (print/type) Betty Jurey

Date February 2, 1998

Title Buyer/Safety Director

If you have special accomodation needs or require this document in an alternative format, please contact the Hazardous Waste and Toxics Reduction Program at (360) 407-6700 (voice) or (360) 407-6006 (TDD).

Dangerous Waste Annual Report Verification Form 1998

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Washington State Department of Ecology
Hazardous Waste Information
P. O. Box 47658
Olympia, WA 98504-7658
(800) 874-2022 (within state)
(360) 407-6170

For Ecology Use Only - Date Received :

Form	Review	HWIMSy Entry	Verification	P3
VF				
GM				
WR				
OI				

Site Location Information:

RCRA Site ID: **WAD 988 507 885**
Company Name: **Acrowood Corp**
Site Location: **4425 S 3RD AVE**
City/State/Zip: **EVERETT, WA 98203-2515** County: **SNOHOMISH**
Dept. of Revenue Tax Registration Number: Primary SIC : **3599**
Current company name if different from above: _____

This Report is Due No Later Than March 1, 1999

All information listed below is required. If information is missing or incorrect, please enter the changes in the right hand column.

1a. The mailing address for this site is:

Name: Acrowood Corp
Mail Address: PO Box 1028
EVERETT, WA 98206-1028

1b.

Name: _____
Mail Address: _____

2a. The legal company/agency owner of this site is:

Name: Farhang Javid
Mail Address: PO Box 1028
EVERETT, WA 98206-1028
Work Phone: (425)258-3555 Ext:

2b.

Name: _____
Mail Address: _____
Phone: _____ Ext: _____

Did the company ownership of this site change in 1998?

☐ Yes Date: _____ (continue to the right):

☒ No (go to 3a):

I represent the:

☐ Current Company Owner
☐ Previous Company Owner

☐ I need a Notification Form sent to me
☐ I have aleady submitted a revised Notification Form

This report covers waste activity for: ☐ Entire year ☐ My term of ownership only

3a. The land owner of this site is:

Name: Farhang Javid
Mail Address: PO Box 1028
EVERETT, WA 98206-1028
Phone: (425)258-3555 Ext:

3b.

Name: _____
Mail Address: _____
Work Phone: _____ Ext: _____

4a. The contact for site visits and inspections is:

Name/Title: Robert Felix
Mail Address: PO Box 1028
EVERETT, WA 98206-1028
Work Phone: (425)258-3555 Ext: 367

4b.

Name/Title: _____
Mail Address: _____
Work Phone: _____ Ext: _____

5a. The contact for annual report forms is:

Name/Title: Betty Jurey
Mail Address: PO Box 1028
EVERETT, WA 98206-1028
Work Phone: (425)258-3555 Ext: 217

5b.

Name/Title: _____
Mail Address: _____
Work Phone: _____ Ext: _____

22755667

6. Generator Status and Waste Management Activities

Indicate the facility's generator status for 1998 by checking the appropriate boxes below. If your status has changed from last year, please use the Comments section (#8, below) to explain.

6a. Generator Status

- ☐ Large Quantity Generator (LQG)
- ☐ Medium Quantity Generator (MQG)
- ☒ Small Quantity Generator (SQG)
- ☐ No regulated dangerous waste generated

6b. Transportation Activity (requires prior notification)

- ☐ Transporter for your own waste
- ☐ Transporter for commercial purposes

6c. Treatment, Storage, Disposal, Recycling (TSDR) Facility (Requires Permit)

- ☐ For waste generated at this facility
- ☐ For waste generated by other facilities

6d. Excluded On-Site Waste Management

- ☐ Permit-by-Rule - (PBR)
- ☐ Recycling without prior storage or accumulation

7. Report Summary

Please check off which forms are included in this report and provide the total number of pages. For electronic data submittal, please indicate method of your submission.

7a. Paper Form Submittal

- ☒ Verification (VF) Form
- ☐ Generation and Management (GM) For
- ☐ Off-site Identification Information (OI) Form
- ☐ Waste Received (WR) Form
- ☐ Recycling Credit documentation attached

2 Total Number of pages submitted

7b. Electronic Data Submittal

- ☐ Verification (VF) Form
- ☐ Disk(s) included
- ☐ Data submitted on Internet
- ☐ Recycling Credit documentation attached

8. Comments

9. Certification

The following must be signed by authorized representative of the company/agency. This certification language is required under EPA's Biennial Report. Ecology is required to implement reporting requirements at least as stringent as those in that report.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possiblity of fine and imprisonment for knowing violations.

Signature (in ink) Betty Jurey

Name (print/type) Betty Jurey

Date January 29, 1999

Title Buyer/Safety Director

If you have special accomodation needs or require this document in an alternative format, please contact the Hazardous Waste and Toxics Reduction Program at (360) 407-6700 (voice) or (360) 407-6006 (TDD).

Do Not FAX this document unless requested by the Department of Ecology.

APPENDIX E

EPA DOCUMENTS ON TRANSFORMERS

United States
Environmental Protection
Agency

Region 10
1200 Sixth Avenue
Seattle WA 98101

Alaska
Idaho
Oregon
Washington

EPA

APR 25 1995

Reply to the
Attention of M/S AT-083

NOTICE OF CASE CLOSURE

Bob Felix
Manager of Manufacturing
Acrowood Corporation
P.O. Box 1028
Everett, WA 98206

Dear Mr. Felix:

I received your letter of April 24, 1995, which enclosed information from General Electric which documented that the sealed oil switches at your facility did not contain PCBs. With the receipt of this information, we now consider this matter closed.

I appreciate your efforts in this matter. If you have any questions, please call me at (206) 553-7369.

Sincerely,

William M. Hedgebeth

William M. Hedgebeth
PCB Team Leader
Toxic Substances Section

cc: Dennis Lazzar, WOO

April 24, 1995

Attention M/S AT-083

CERTIFIED MAIL

William M. Hedgeberth
PCB Team Leader
Toxic Substances Section
Environmental Protection Agency
1200 Sixth Avenue M/S
Seattle WA, 98101-9797

Dear Mr. Hedgeberth:

This is a follow up to your letter dated April 7, 1995, RE: NOTICE OF NONCOMPLIANCE.

As we discussed April 24, 1995, I am enclosing a copy of the fax sent to Acrowood Corporation by GE Business Information Center, 320 Great Oaks Office Part, Suite 328, Albany, NY 12205.

The information in the fax states that the GE FKC-2 switches are filled with Mineral Oil and do not contain PCB.

The Mineral Oil will be removed from the sealed switches and disposed of in our Hazardous Material Waste Stream.

Thank you for your co-operation and quick response in this matter.

Sincerely,

Bob Felix
Manager Of Manufacturing
Acrowood Corporation

cc: Shannon Javid,
Vice President, General Manager Acrowood Corp

Betty Jurey
Safety Director Acrowood Corp

United States
Environmental Protection
Agency

Region 10
1200 Sixth Avenue
Seattle WA 98101

Alaska
Idaho
Oregon
Washington

EPA

April 7, 1995

**Reply To The
Attention of M/S AT-083**

CERTIFIED MAIL

NOTICE OF NONCOMPLIANCE

**Robert A. Felix
Manager of Manufacturing
Acrowood Inc.
4425 South 3rd
Everett, WA 98203**

Dear Mr. Felix:

This concerns the February 23, 1995, Environmental Protection Agency (EPA) inspection of facilities of Acrowood Inc., located at 4425 South 3rd, Everett, Washington. The inspection was conducted by Dennis Lazzar of the United States Environmental Protection Agency (EPA) pursuant to Section 11 of the Toxic Substances Control Act (TSCA) to determine compliance with the federal PCB Regulations which were promulgated pursuant to TSCA.

A review of information obtained during the inspection documented that violations of EPA regulations occurred at the facility. Those violations are as follow:

REGULATION - DISPOSAL

40 C.F.R. § 761.60(d) provides that spills and other uncontrolled discharges of PCBs at concentrations of 50 ppm or greater constitute the disposal of PCBs. PCBs resulting from the cleanup and removal of spills, leaks, or other uncontrolled discharges, must be stored and disposed of in accordance with 40 C.F.R. § 761.60(a). Disposal of PCBs in any other manner constitutes the improper disposal of PCBs.

ASSUMPTION REQUIREMENT/REGULATION - PCB-CONTAMINATED ELECTRICAL EQUIPMENT

40 C.F.R. § 761.3 provides that oil-filled electrical equipment other than circuit

breakers, reclosers, and cable whose PCB concentration is unknown must be assumed to be PCB-Contaminated Electrical Equipment.

VIOLATIONS ONE AND TWO

Two imputed PCB-contaminated transformers (in a group of seven transformers located on a platform approximately 40 feet above ground outside the foundry weld area), were leaking at the time of the inspection. There were no records available to document the PCB concentration of at least three of the seven transformers on this platform and these three transformers were therefore assumed by regulations to be PCB-contaminated electrical equipment. The leaking from these two transformers therefore constituted the improper disposal of PCBs.

REGULATION - STORAGE

40 C.F.R. § 761.65(b) requires that any facility used for the storage of PCBs and PCB Items designated for disposal meet the following criteria:

1) Adequate roof and walls to prevent rain water from reaching the stored PCBs and PCB Items;
2) An adequate floor which has continuous curbing with a minimum six inch high curb. The floor and curbing must provide a containment volume equal to at least two times the internal volume of the largest PCB Article or PCB Container stored therein or 25 percent of the total internal volume of all PCB Articles or PCB Containers stored therein, whichever is greater;
3) No drain valves, floor drains, expansion joints, sewer lines, or other openings that would permit liquids to flow from the curbed area;
4) Floors and curbing constructed of continuous smooth and impervious materials, such as Portland cement concrete or steel, to prevent or minimize penetration of PCBs; and
5) A site that is not located below the 100-year flood water elevation.

VIOLATION THREE

The area where three imputed PCB-contaminated transformers, identified in Violations One and Two, were stored for disposal did not meet the requirements of 40 C.F.R. § 761.65(b).

REGULATION - MARKING

40 C.F.R. § 761.40 requires that PCB Transformers, Large PCB Capacitors, PCB

Containers, and storage areas used to store PCBs and PCB Items be marked in accordance with 40 C.F.R. § 761.45 unless the Item or Container is too small to accommodate the 6 X 6 inch PCB label.

VIOLATION FOUR

The area where three imputed PCB-contaminated transformers, identified in Violations One and Two, were stored for disposal was not marked with the required PCB label.

Further enforcement action will not be recommended on the condition that the transformers in question in this matter are tested and are shown to contain less than 50 parts per million PCB. I understand that you advised Mr. Lazzar that you were having the three transformers in question tested. In that respect, please provide copies of analytical reports received documenting the PCB concentration in the transformers. This information should be provided within 30 days of your receipt of this letter. If you have any questions regarding this letter, please contact me at (206) 553-7369.

Sincerely,

William M. Hedgebeth

William M. Hedgebeth
PCB Team Leader
Toxic Substances Section

cc: Dennis Lazzar, WOO

GE Industry
Sales & Services

General Electric Company
112 Andover Park East, Seattle, WA 98188
800 533-5885

FILE

June 5, 1989

Acrowood
P.O. Box 1028
Everett, WA 98206

Attn: Paul Keefe

Subject: Oil Sample Test at Acrowood

Dear Paul:

Please find attached oil sample results from our lab.

If you have any questions please do not hesitate to call me at 800-533-5885.

Sincerely,

Greg R. Davarpanah

Greg Davarpanah
Field Engineer

GD:kw

GENERAL ELECTRIC CO.
LIQUID INSULATION LABORATORY
4900 KINGSTON ST.
DENVER, CO 80239
(303) 329-2323 or 329-2324

G.E. SEATTLE IND. SERVICES
112 Andover PK. E.
Seattle, WA 98188
ATTN: GREG DAVARPANAH

JOB #: 31013
PO #: 438P0832

07/21/89

The results of PCB (Polychlorinated Biphenyl) analysis of your sample(s) is as follows:

Sample ID Description	Arochlor Type	Result in PPM (mg/kg)
GE XFMR NO S/N GIVEN		NONE DET.
WEST. XFMR NO S/N GIVEN		NONE DET.

SB /

Tested by

2 Samples
(Lab Copy)

LOCATION

Out Side of Machine Shop Office Up on Platform

GE Industry
Sales & Services

General Electric Company
112 Andover Park East, Seattle, WA 98188
800 533-5885

July 23, 1989

Acrowood
P.O. Box 1028
Everett, WA 98206

Attn: Paul Keefe

Subject: Oil Sample Test at Acrowood

Dear Paul:

Please find attached oil sample results from our lab.

If you have any questions please do not hesitate to call me at 800-533-5885.

Sincerely,

Greg Davarpanah
Field Engineer

GD:kw

JUL 2 8

GENERAL ELECTRIC CO.
LIQUID INSULATION LABORATORY
4900 KINGSTON ST.
DENVER, CO 80239
(303) 329-2323 or 329-2324

G.E. SEATTLE IND. SERVICES
112 Andover PK. E.
Seattle, WA 98188
ATIN: GREG DAVARPANAH

EQUIP. S/N G583357-66K
MANUFACTURER GENERAL ELECTRIC
LOCATION OUTDOOR FENCED-UP SUB
JOB # 30606 P.O. # 438P0832

05/19/89

MINERAL OIL ANALYSIS REPORT

		05/19/89	
TEST	ASTM	Comp.	Specification
Dielectric Strength	D877 D1816	38	>30 KV
Water (ppm) Content	D1533 Temp.	12	<30 PPM
Visual Cond./Sed.	D1524	CLEAR SLIGHT	Clear Slight
Color	D1524	1.5	<3
Acidity	D1534	.03	<0.25 mg/KOH
Specific Gravity	D1298	.876	0.860-0.910
Refractive Index	D1807	1.4815	1.480-1.495
Viscosity	D445	10.5	<12 CST
IFT	D971	32	>20 Dynes/cm
PCB Cont.	D4059	3.6	<50 PPM

COMMENTS: TRANSFORMER IS CLASSIFIED AS NON-PCB, <50 PPM.
OIL MEETS G.E. AND I.E.E.E. SPECS.
PCB AROCLOR = 1260.

LOCATION

Outside of sub station on ground, Looking South from Left to Right this is #1

TESTED BY: NLee

GENERAL ELECTRIC CO.
LIQUID INSULATION LABORATORY
4900 KINGSTON ST.
DENVER, CO 80239
(303) 329-2323 or 329-2324

G.E. SEATTLE IND. SERVICES
112 Andover PK. E.
Seattle, WA 98188
ATTN: GREG DAVARPANAH

EQUIP. S/N 66AC6011
MANUFACTURER WESTINGHOUSE
LOCATION OUTDOOR FENCED-UP SUB
JOB # 30606 P.O. # 438P0832

05/19/89

MINERAL OIL ANALYSIS REPORT

		05/19/89	
TEST	ASTM	Comp.	Specification
Dielectric Strength	D877 D1816	41	>30 KV
Water (ppm) Content	D1533 Temp.	12	<30 PPM
Visual Cond./Sed.	D1524	CLEAR SLIGHT	Clear Slight
Color	D1524	.5	<3
Acidity	D1534	.015	<0.25 mg/KOH
Specific Gravity	D1298	.895	0.860-0.910
Refractive Index	D1807	1.4922	1.480-1.495
Viscosity	D445	10.4	<12 CST
IFT	D971	32	>20 Dynes/cm
PCB Cont.	D4059	NONE DET.	<50 PPM

COMMENTS:
OIL MEETS G.E. AND I.E.E.E. SPECS.

LOCATION

Outside of sub station on ground. Looking South from Left to Right this is #2

TESTED BY: NLee

LOCATION

Outside of sub station on ground. Looking South from Left to Right this is #3
Installed in March of 1989, See Attached
Serial #18859502
PUD Equipment #
167
TS
713
X

GENERAL ELECTRIC CO.
LIQUID INSULATION LABORATORY
4900 KINGSTON ST.
DENVER, CO 80239
(303) 329-2323 or 329-2324

G.E. SEATTLE IND. SERVICES
112 Andover PK. E.
Seattle, WA 98188
ATTN: GREG DAVARPANAH

EQUIP. S/N 66AF1231
MANUFACTURER WESTINGHOUSE
LOCATION OUTDOOR FENCED-UP SUB
JOB # 30606 P.O. # 438P0832

05/19/89

MINERAL OIL ANALYSIS REPORT

		05/19/89	
TEST	ASTM	Comp.	Specification
Dielectric Strength	D877 D1816	44	>30 KV
Water (ppm) Content	D1533 Temp.	15	<30 PPM
Visual Cond./Sed.	D1524	CLEAR SLIGHT	Clear Slight
Color	D1524	.5	<3
Acidity	D1534	.015	<0.25 mg/KOH
Specific Gravity	D1298	.895	0.860-0.910
Refractive Index	D1807	1.4930	1.480-1.495
Viscosity	D445	10.3	<12 CST
IFT	D971	31	>20 Dynes/cm
PCB Cont.	D4059	NONE DET.	<50 PPM

COMMENTS:
OIL MEETS G.E. AND I.E.E.E. SPECS.

LOCATION

Outside of sub station on ground. Looking South from Left to Right this is #4

TESTED BY: N Lee

GENERAL ELECTRIC CO.
LIQUID INSULATION LABORATORY
4900 KINGSTON ST.
DENVER, CO 80239
(303) 329-2323 or 329-2324

G.E. SEATTLE IND. SERVICES
112 Andover PK. E.
Seattle, WA 98188
ATTN: GREG DAVARPANAH

EQUIP. S/N 6202816
MANUFACTURER R.I.E.
LOCATION WHITEONE TYPE 61 I15A
JOB # 30606 P.O. # 438P0832

05/19/89

MINERAL OIL ANALYSIS REPORT

TEST	ASTM	05/19/89 Comp.	Specification
Dielectric Strength	D877 D1816	39	>30 KV
Water (ppm) Content	D1533 Temp.	16	<30 PPM
Visual Cond./Sed.	D1524	CLEAR SLIGHT	Clear Slight
Color	D1524	1.0	<3
Acidity	D1534	.03	<0.25 mg/KOH
Specific Gravity	D1298	.869	0.860-0.910
Refractive Index	D1807	1.4759	1.480-1.495
Viscosity	D445	9.9	<12 CST
IFT	D971	35	>20 Dynes/cm
PCB Cont.	D4059	NONE DET.	<50 PPM

COMMENTS:
OIL MEETS G.E. AND I.E.E.E. SPECS.
SLIGHT AMOUNT OF SUSPENDED PARTICLES.

LOCATION

Outside foundry weld area up on Pole next to Platform. White Transformer

TESTED BY: NLee

GENERAL ELECTRIC CO.
LIQUID INSULATION LABORATORY
4900 KINGSTON ST.
DENVER, CO 80239
(303) 329-2323 or 329-2324

G.E. SEATTLE IND. SERVICES
112 Andover PK. E.
Seattle, WA 98188
ATTN: GREG DAVARPANAH

EQUIP. S/N. 1284071
MANUFACTURER LINE MATERIAL CO.
LOCATION CAT # E419072-167
JOB # 30606 P.O. # 438P0832

05/19/89

MINERAL OIL ANALYSIS REPORT

		05/19/89	
TEST	ASTM	Comp.	Specification
Dielectric Strength	D877 D1816	40	>30 KV
Water (ppm) (tent	D1533 Temp.	15	<30 PPM
Visual Cond./Sed.	D1524	CLEAR NO SED.	Clear Slight
Color	D1524	1.0	<3
Acidity	D1534	.045	<0.25 mg/KOH
Specific Gravity	D1298	.880	0.860–0.910
Refractive Index	D1807	1.4858	1.480–1.495
Viscosity	D445	9.9	<12 CST
IFT	D971	24	>20 Dynes/cm
PCB Cont.	D4059	NONE DET.	<50 PPM

COMMENTS:
OIL MEETS G.E. AND I.E.E.E. SPECS.

LOCATION

Outside foundry weld area up on Platform 1 of 3 Grav Transformers

TESTED BY: NLee

GENERAL ELECTRIC CO.
LIQUID INSULATION LABORATORY
4900 KINGSTON ST.
DENVER, CO 80239
(303) 329-2323 or 329-2324

G.E. SEATTLE IND. SERVICES
112 Andover PK. E.
Seattle, WA 98188
ATTN: GREG DAVARPANAH

EQUIP. S/N 1284069
MANUFACTURER LINE MATERIAL CO.
LOCATION 167 KVA 91 GALLONS
JOB # 30606 P.O. # 438P0832

05/19/89

MINERAL OIL ANALYSIS REPORT

TEST	ASTM	05/19/89 Comp.	Specification
Dielectric Strength	D877 D1816	39	>30 KV
Water (ppm) Content	D1533 Temp.	15	<30 PPM
Visual Cond./Sed.	D1524	CLEAR SLIGHT	Clear Slight
Color	D1524	1.5	<3
Acidity	D1534	.06	<0.25 mg/KOH
Specific Gravity	D1298	.877	0.860-0.910
Refractive Index	D1807	1.4844	1.480-1.495
Viscosity	D445	10.3	<12 CST
IFT	D971	23	>20 Dynes/cm
PCB Cont.	D4059	NONE DET.	<50 PPM

COMMENTS:
OIL MEETS G.E. AND I.E.E.E. SPECS.

LOCATION

Outside foundry weld area up on Platform 1 of 3 Grav Transformers

TESTED BY: N Lee

GENERAL ELECTRIC CO.
LIQUID INSULATION LABORATORY
4900 KINGSTON ST.
DENVER, CO 80239
(303) 329-2323 or 329-2324

G.E. SEATTLE IND. SERVICES
112 Andover PK. E.
Seattle, WA 98188
ATTN: GREG DAVARPANAH

EQUIP. S/N 1284079
MANUFACTURER LINE MATERIAL CO.
LOCATION 167 KVA 91 GALLONS
JOB # 30606 P.O. # 438P0832

05/19/89

MINERAL OIL ANALYSIS REPORT

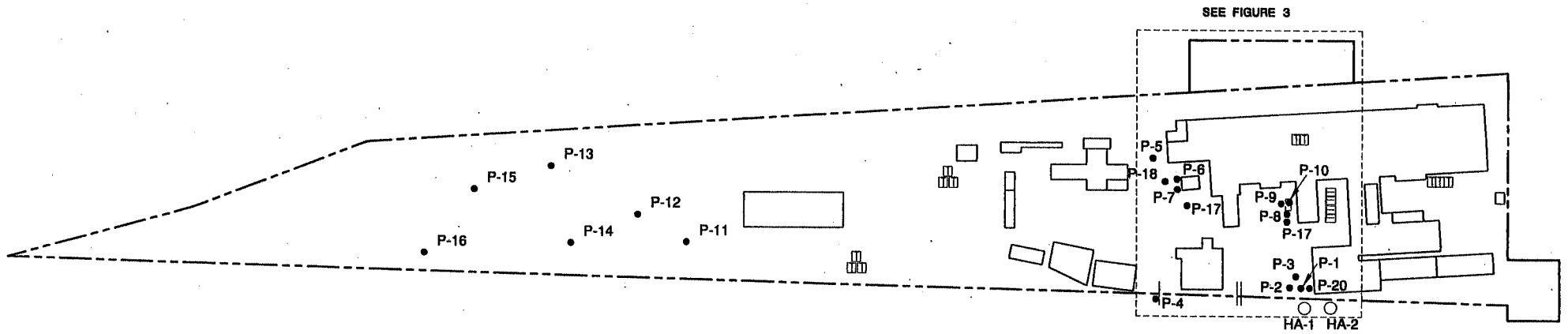
		05/19/89	
TEST	ASTM	Comp.	Specification
Dielectric Strength	D877 D1816	45	>30 KV
ter (ppm) ntent	D1533 Temp.	15	<30 PPM
Visual Cond./Sed.	D1524	CLEAR SLIGHT	Clear Slight
Color	D1524	1.5	<3
Acidity	D1534	.075	<0.25 mg/KOH
Specific Gravity	D1298	.876	0.860-0.910
Refractive Index	D1807	1.4839	1.480-1.495
Viscosity	D445	10.2	<12 CST
IFT	D971	21	>20 Dynes/cm
PCB Cont.	D4059	NONE DET.	<50 PPM

COMMENTS:
OIL MEETS G.E. AND I.E.E.E. SPECS.
SLIGHT-AMOUNT OF SUSPENDED PARTICLES IN SAMPLE.

LOCATION

Outside foundry weld area up on Platform 1 of 3 Gray Transformers

TESTED BY: NLee



NOT TO SCALE

LSI ADAPT, INC.

800 Maynard Avenue S., Suite 403
Seattle, Washington 98134
Ph.: 206.654.7045 Fax: 206.654.7048

FIGURE 2 - Site Plan

Project : Acrowood Everett
Location : 4425 3rd Avenue
Everett, Washington 98206
Client : Acrowood Corporation