

**Remedial Action Report  
Tacoma Silver Cloud Inn Property  
2317 Ruston Way  
Tacoma, Washington**

February 1, 2013

Prepared for

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## LIST OF ABBREVIATIONS AND ACRONYMS

AO	Agreed Order
BGS	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CDM	Camp Dresser & McKee Inc.
CSL	Cleanup Screening Level
Ecology	Washington State Department of Ecology
ft	Feet
mg/kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
MTCA	Model Toxics Control Act
PAH	Polycyclic Aromatic Hydrocarbon
Silver Cloud Inns	Tacoma Silver Cloud Inns LLC
SMS	Sediment Management Standards
SQS	Sediment Quality Standards
SVOC	Semivolatile Organic Compound
TOC	Total Organic Carbon
TPH-D	Diesel-Range Total Petroleum Hydrocarbons
TPH-G	Gasoline-Range Total Petroleum Hydrocarbons
TPH-O	Oil-Range Total Petroleum Hydrocarbons
UST	Underground Storage Tank
WAC	Washington Administrative Code
WDFW	Washington Department of Fish & Wildlife

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## 1.0 INTRODUCTION

This report documents the remedial actions conducted at the Tacoma Silver Cloud Inn property (subject property) located at 2317 Ruston Way, Tacoma, Washington (Figures 1 and 2). The subject property is bordered to the south by Ruston Way and extends north into Commencement Bay, which surrounds the east, north, and most of the west property boundaries. The Robert Hamilton public park abuts the southwestern portion of the subject property. The remedial actions were conducted to address soil, sediment, and groundwater contamination identified during development of the subject property.

The remedial actions were conducted consistent with the requirements of an Agreed Order (AO) between the Washington State Department of Ecology (Ecology) and Tacoma Silver Cloud Inns LLC (Silver Cloud Inns; Ecology 2000), and the applicable regulations including the Ecology Model Toxics Control Act [MTCA; Chapter 173-340 Washington Administrative Code (WAC)] and the Ecology Sediment Management Standards [SMS; Chapter 173-204 WAC]. Silver Cloud Inns is submitting this report to Ecology for review in accordance with Element 6 of Section IV – “Work To Be Performed” of the AO.

This Remedial Action Report summarizes the investigative and remedial actions conducted at the subject property, and documents that a No Further Action determination is warranted for the property. This report in conjunction with reports previously submitted to, and approved by, Ecology (specifically the *UST Closure Site Assessment* dated June 26, 2000 and the *Sediment Sampling Report* dated June 26, 2002) meets the requirements of Element 6 under Section IV – “Work to Be Performed” of the AO.

The investigative and remedial actions conducted at the subject property and summarized in this report consist of the following:

- Removal and offsite disposal of five underground storage tanks (USTs) and associated oil- and diesel-range total petroleum hydrocarbon (TPH-O and TPH-D)-contaminated soil, and follow-up soil confirmation sampling and laboratory analysis.
- Removal and offsite disposal of sediment from the intertidal area at the subject property where sampling had identified the metal mercury and the semivolatile organic compound (SVOC) bis(2-ethylhexyl)phthalate at concentrations greater than the SMS Sediment Quality Standard (SQS) and Cleanup Screening Level (CSL), and follow-up sediment confirmation sampling and laboratory analysis.
- Groundwater monitoring to document TPH-O and TPH-D concentrations in subject property groundwater following removal of the USTs and surrounding soil.

### 1.1 SITE BACKGROUND

In 1998 and 1999, as part of planning for development of the subject property, Silver Cloud Inns conducted environmental investigations that documented the history of use and physical conditions at the subject property. The investigations included a geophysical investigation of the upland portion of the

subject property to identify the location(s) of USTs suspected to be present, and sampling and analysis of near-shore intertidal sediments to assess potential impacts due to historical operations at the subject property.

The near-shore intertidal sediment sampling and analysis identified mercury and a single semivolatile organic compound (SVOC), bis(2-ethylhexyl)phthalate, in two areas of the near-shore sediments at concentrations greater than the SMS SQS and CSLs (CDM 2002). Based on the sediment characterization data, Silver Cloud Inns subsequently removed the impacted sediment and debris from the intertidal area as part of redevelopment activities at the subject property, as discussed below.

The geophysical survey identified five USTs located near the southern subject property boundary along Ruston Way (Figure 2). Information was not available regarding the history of use, size, or contents of the USTs. Silver Cloud Inns subsequently entered into an AO with Ecology for removing the tanks, conducting a remedial investigation to determine the extent of contamination present in soil and groundwater resulting from any leaks in the tanks, and completing any associated cleanup that was determined necessary based on the results of the investigation. The AO also required additional sediment sampling to evaluate migration of upland contaminants to the intertidal area and to confirm the effectiveness of the sediment remedial action.

## **1.2 SITE GEOLOGY AND HYDROGEOLOGY**

Based on observations made during the UST excavation activities, the upland subsurface at the subject property consists of approximately 7 feet (ft) of brown, fine to medium sand interpreted to be fill material overlying gray sand interpreted to be native beach deposits (CDM 2000). The fill is interpreted to have been placed over the native sediments of Commencement Bay to allow development of the subject property.

Groundwater was encountered at approximately 7 ft below ground surface (BGS) during the UST excavation work. Based on the proximity of the excavation area to Commencement Bay, the groundwater at the subject property is likely tidally influenced (CDM 2000).

## 2.0 CLEANUP STANDARDS

This section describes the cleanup standards established for the subject property and used to evaluate the effectiveness of the remedial actions. These cleanup standards include cleanup levels and points of compliance for contaminants present in soil, sediment, and groundwater.

### 2.1 CLEANUP LEVELS

The subject property is located in the Ruston Way commercial area of Tacoma. The cleanup levels for the subject property were selected and documented in the various investigative and remedial action work plans and reports previously submitted to and approved by Ecology. The selection of cleanup levels considered all applicable, relevant, and appropriate requirements for protection of human health and the environment. Based on the results of the investigations conducted, discussions with Ecology, and in accordance with the AO, the compounds of concern, the affected media, and the associated cleanup levels for the subject property include:

- TPH-D in soil at concentrations greater than the MTCA Method A soil cleanup level
- Mercury in intertidal sediment at a concentration above the SMS CSL
- Bis(2-ethylhexyl)phthalate in intertidal sediment at concentrations above the SMS CSL
- TPH-D and TPH-O in groundwater at concentrations greater than the MTCA Method A groundwater cleanup level.

Per WAC 173-340-7491(1)(c), the subject property qualifies for an exclusion from a terrestrial ecological evaluation based on:

- The analytes of concern for the soil and groundwater are TPH-D and TPH-O
- There is less than 1.5 acres of contiguous undeveloped land within 500 ft of any area of the subject property.

Based on these factors, the presence of relatively few hazardous substances at the subject property, and because the cleanup is considered routine, the MTCA Method A soil and groundwater cleanup levels for unrestricted land uses were selected as the cleanup levels for the cleanup action as allowable under WAC 173-340-700(5)(a). The selected cleanup level for both TPH-D and TPH-O in soil is 2,000 milligrams per kilogram (mg/kg) and 0.5 milligrams per liter (mg/L) in groundwater.

Per WAC 173-204-500 and -520, the SMS CSLs were identified as cleanup levels for the intertidal sediment. The SMS CSL for mercury is 0.59 mg/kg dry and the CSL for bis(2-ethylhexyl)phthalate is 78 mg/kg organic carbon.



## **2.2 POINT OF COMPLIANCE**

Under MTCA, the point of compliance is the point or points where the cleanup levels must be attained. The standard point of compliance where soil cleanup levels protective of direct human contact must be met is throughout a site from the ground surface to 15 ft BGS, in accordance with WAC 173-340-740(6)(d). Therefore, the point of compliance for soil was established as throughout subject property soil to a depth of 15 ft BGS for protection of direct human contact.

For groundwater, the point of compliance was established to be the standard point of compliance under WAC 173-340-720(8). The standard point of compliance is throughout the subject property from the uppermost level of the saturated zone extending vertically to the lowest depth that could be affected by the property.

The point of compliance for sediment was established to be throughout the predominant biologically active zone. The predominant biologically active zone is typically assumed to be the upper 10 centimeters (4 inches) of sediment. As noted in Section 4.2, the sediment remedial action included removal of 6 to 24 inches of sediment within the intertidal zone and placement of clean backfill.

## **2.3 OTHER REQUIREMENTS**

In addition to the regulations cited in Section 2.1, other local, state, and federal requirements that were, or potentially were, applicable or relevant and appropriate requirements to the action included the State Dangerous Waste Regulations (Chapter 173-303 WAC) for disposition of the petroleum-contaminated soil and the removed sediment.

### **3.0 RATIONALE FOR THE SELECTED REMEDIAL ACTION ALTERNATIVE**

Soil and sediment excavation with offsite disposal and compliance monitoring were selected as the remedial actions for the subject property based on the contaminants present [i.e., TPH-D and TPH-O in soil, and mercury and bis(2-ethylhexyl)phthalate in intertidal sediment], and the routine nature of the cleanup. These remedial actions effectively and permanently protects human health and the environment by removal of the impacted soil and sediment from the subject property for appropriate offsite disposal, and documents compliance with the soil, sediment, and groundwater cleanup levels.

## 4.0 REMEDIAL ACTIONS

The remedial actions implemented at the subject property were conducted to remove five USTs, soil with TPH-D and TPH-O concentrations greater than the MTCA Method A soil cleanup levels, and mercury and bis(2-ethylhexyl)phthalate in intertidal sediment at concentrations greater than the SMS CSLs. The remedial action addressing the USTs and TPH-impacted soil was conducted by Silver Cloud Inns in accordance with the AO and in coordination with Ecology. Except for sediment confirmation sampling, the remedial action addressing mercury- and bis(2-ethylhexyl)phthalate-impacted sediment was not required under the AO; however, it was conducted in consultation with Ecology. As noted above, the reports detailing the remedial actions (referenced below) have previously been provided to, and approved by, Ecology.

### 4.1 UNDERGROUND STORAGE TANK REMOVAL, SOIL EXCAVATION, DISPOSAL, AND PERFORMANCE MONITORING

In May 2000, five USTs of unknown age were removed from the subject property. Based on observations at the time of removal, the USTs ranged in size from 550 to 6,000 gallons. Four of the tanks were thought to have previously contained diesel and one tank was thought to have contained gasoline (CDM 2000). No associated piping or dispenser(s) were found during the UST and soil excavation work.

Prior to removal, the contractor, Pacific Environmental Services Company, used dry ice to render the USTs inert. The soil surrounding the tanks was then excavated, and the tanks were removed and inspected. At the time of removal, all of the tanks appeared to be heavily corroded with numerous holes and pits (CDM 2000). The tanks were transported for appropriate offsite disposal. The UST excavation work was documented by completion of an Ecology UST Site Check/Site Assessment Checklist and an UST Closure and Site Assessment Notice.

During tank removal, visible petroleum hydrocarbon staining was observed on the soil adjacent to the tanks, and sheen was visible on the water that collected in the excavation at a depth of about 7 ft BGS (CDM 2000). Based on the visible evidence of petroleum hydrocarbon contamination, and following consultation with the Ecology representative who was on site during the UST removal work, the visibly contaminated soil was removed from the excavation. The excavated soil was stockpiled onsite pending analysis of characterization samples.

During tank removal, the excavated soil was field-screened for the presence of volatile organic compounds using an organic vapor meter equipped with a photoionization detector, and eight soil performance monitoring samples were collected from the final limits of the excavation for laboratory analysis, based on field-screening data, the previous UST locations, and consultation with the Ecology representative. The eight samples were submitted for laboratory analysis for TPH-D and TPH-O by

Method NWTPH-Dx, gasoline-range total petroleum hydrocarbons (TPH-G) and benzene, toluene, ethylbenzene, and xylenes (BTEX) by Method NWTPH-Gx. In addition, Sample 4 was analyzed for polycyclic aromatic hydrocarbons (PAHs) by U.S. Environmental Protection Agency Method 8270C, at the request of the Ecology representative. One soil stockpile sample was also collected and analyzed by Methods NWTPH-Dx and NWTPH-Gx. The soil performance monitoring sample locations are shown on Figure 3; the analytical results for the soil performance monitoring samples are presented in Table 1 of the 2000 Camp Dresser & McKee (CDM) report and the results for the stockpile sample are presented in Table 2 of the CDM report. These tables are provided in Appendix A of this report.

The analytical results indicated concentrations of TPH-D greater than the MTCA Method A cleanup level in effect at the time (200 mg/kg) in Sample 1 (510 mg/kg), Sample 4 (2,800 mg/kg), and Sample 5 (3,900 mg/kg), and in the stockpile sample (6,500 mg/kg). The concentration detected in Sample 1 (510 mg/kg) is less than the current MTCA Method A soil cleanup level of 2,000 mg/kg. No gasoline constituents were identified at concentrations greater than the cleanup levels in any of the eight confirmation samples or the stockpile sample.

Based on the field observations and the analytical results, the TPH-D and TPH-G concentrations in soil at the excavation for Tank 5 (Sample 7) were below the applicable cleanup levels, but the TPH-D concentrations in soil at the excavation for Tanks 1 through 4 (Samples 1, 4, and 5) were greater than the cleanup level; local groundwater contamination by petroleum hydrocarbons was also observed. Following discussions with Ecology, the excavations were backfilled with imported material and Silver Cloud Inns agreed to install two monitoring wells (identified as MW-1 and MW-2) at the subject property to further define the extent of the contamination associated with the tanks and to implement a monitored natural attenuation approach to address the residual petroleum hydrocarbon contamination. The number of wells and the locations of the monitoring wells were negotiated under the AO (CDM 2000). The monitoring well locations are shown on Figure 3.

The tanks and petroleum hydrocarbon-impacted soil were disposed of off site per applicable regulations (CDM 2000).

## **4.2 SEDIMENT REMOVAL, DISPOSAL, AND PERFORMANCE MONITORING**

As discussed above, the results of characterization sampling in 1999 indicated the need for remedial action for the intertidal sediment at the subject property. Silver Cloud Inns subsequently conducted a remedial action in the summer of 2001 that included removal of sediment and other debris from the intertidal area and backfilling of the area. The backfilling included placement of a 6-to 24-inch-thick layer of imported fill material approved by the Washington Department of Fish & Wildlife

(WDFW) that consisted of fine- to coarse-grained sand with a trace of silt (CDM 2002). The removed sediment and debris was transported off site for disposal in accordance with the applicable regulations.

After the sediment removal was completed, Ecology requested that Silver Cloud Inns collect performance monitoring samples to document that the contaminated sediments had been removed from the intertidal area at the subject property. A Sampling and Analysis Plan was subsequently prepared and submitted, and approved by Ecology in January 2002 (CDM 2002). The scope of work for the sediment sampling that was approved by Ecology included the following:

- Collection of 10 sediment samples from five locations within the intertidal area at the subject property. Two samples consisting of one shallow sample from 0 to 4 inches below the surface and one deeper sample from the fill/native sediment interface or about 1 ft below the surface, whichever was encountered first, were collected from each sample location.
- Laboratory analysis of the samples for TPH-D, TPH-O, SVOCs, selected metals (i.e., arsenic, cadmium, chromium, copper, lead, silver, zinc, and mercury), and total organic carbon (TOC). Grain size analysis was also conducted.

The sample locations are shown on Figure 4, and designated SED-1 through -5 in contrast to the previous characterization sample locations that are designated SC-1 through -8. The sediment data for the “SED” samples are summarized in Tables 1 through 3 of the 2002 CDM report, which are provided in (Appendix A of this report.

The analytical results for the sediment samples are summarized as follows:

- TPH-D was detected above the laboratory reporting limit in three of the samples. The detected concentrations were well below the MTCA Method A soil cleanup level.
- TPH-O was detected above the laboratory reporting limit in nine of the 10 samples. The detected concentrations were well below the MTCA Method A soil cleanup level.
- Various metals were detected above the laboratory reporting limits in all of the samples. The detected concentrations were all below the SMS SQS and CSLs.
- SVOCs were detected above the laboratory reporting limit in all of the samples. The detected dry weight concentrations were all below the SMS SQS and CSLs.
- TOC values were less than 0.24 percent in 7 of the 10 samples. Only three of the deeper samples [SED-1-2 (1.3 percent), SED-2-2 (8.21 percent), and SED-4-2 (1.4 percent)] had TOC values greater than 0.24 percent.

Due to the low TOC concentrations in 7 of the 10 samples (5 shallow samples and 2 of the deeper samples, which were all collected within the layer of WDFW-approved fill material), normalizing the analytical results for these 7 samples to carbon resulted in numerous SVOC concentrations that were greater than the CSLs. The SVOC analytical results based on dry weight were below the CSLs and SQS for all 10 of the samples. Based on a comparison of the analytical results for the pre- and post-remedial action sampling and the physical nature of the approved fill material, the interpretation is that normalizing the samples with low TOC results in unreasonably elevated contaminant concentrations, and that the

analytical results on a dry weight basis are more representative of the contaminant concentrations present (CDM 2002). The conclusions from the performance monitoring were that the sediment remedial action had effectively reduced the contaminant levels to below the CSLs and SQS, and that the layer of WDFW-approved fill provides a cap over any residual contamination that is present in the underlying native sediment.

## 5.0 CONFIRMATIONAL MONITORING

Following the remedial actions implemented at the subject property to remove soil with TPH-D and TPH-O concentrations greater than the MTCA Method A soil cleanup levels and mercury and bis(2-ethylhexyl)phthalate in intertidal sediment at concentrations greater than the SMS CSLs, Silver Cloud Inns implemented a confirmational monitoring program, consisting of groundwater sampling and analysis, to document that conditions at the subject property were protective of human health and the environment. The confirmational monitoring was conducted by Silver Cloud Inns in accordance with the AO and in coordination with Ecology. Reports detailing the groundwater sampling and analysis have previously been provided to, and approved by, Ecology and a summary of the activities and results is provided below.

As previously described, following the remedial actions at the subject property and as agreed to with Ecology, Silver Cloud Inns installed two monitoring wells at the subject property in 2002 (Figure 3), and initiated a groundwater monitoring program to document petroleum hydrocarbon concentrations in groundwater. Groundwater samples were initially collected from the two monitoring wells between January 2002 and June 2005, and submitted to a laboratory for analysis of TPH-O and TPH-D using Method NWTPH-Dx. The results of the initial sampling indicated the presence of TPH-D in groundwater at concentrations greater than the MTCA Method A cleanup level (0.5 mg/L); however, the TPH-D concentrations showed a decreasing trend (CDM 2009).

The wells were sampled again in June 2008, and the analytical results indicated that the TPH-D and TPH-O concentrations were all below the MTCA Method A cleanup level. At the request of Ecology, an additional three rounds of sampling and analysis were conducted in December 2008, March 2009, and June 2009 to document stable TPH-D and TPH-O concentrations in groundwater for four consecutive sampling events. The analytical results indicated that the TPH-D and TPH-O concentrations in the groundwater samples collected from both monitoring wells were below the MTCA Method A cleanup level for all four sampling events (CDM 2009). The groundwater analytical results are summarized in Table 1 of the 2009 CDM report, which is provided in Appendix A of this report.

## 6.0 FINDINGS AND CONCLUSIONS

Remedial actions were conducted at the subject property to remove TPH-D and TPH-O-impacted soil, and mercury- and bis(2-ethylhexyl)phthalate-impacted marine sediment consistent with the requirements of the AO between Ecology and Silver Cloud Inns, and the applicable regulations including MTCA (Chapter 173-340 WAC) and the Ecology SMS (Chapter 173-204 WAC). The results of the completed remedial action activities are as follows:

- In May 2000, five USTs were removed from the subject property. Based on observations at the time of removal, the USTs ranged in size from 550 to 6,000 gallons. Four of the tanks were thought to have previously contained diesel and one tank was thought to have contained gasoline. No associated piping or dispenser(s) were found during the UST and soil excavation work.
- During tank removal, visible petroleum hydrocarbon staining was observed on the soil adjacent to the tanks, and sheen was visible on the water that collected in the excavation at a depth of about 7 ft BGS. Based on the visible evidence of petroleum hydrocarbon contamination, and following consultation with the Ecology representative who was on site during the UST removal work, the visibly contaminated soil was removed from the excavation. The tanks and petroleum hydrocarbon-impacted soil were disposed of offsite per applicable regulations.
- Soil confirmation samples were collected from the final limits of the excavation for laboratory analysis, based on field-screening data, the previous UST locations, and consultation with the Ecology representative. The samples were submitted for laboratory analysis for TPH-D and TPH-O by Method NWTPH-Dx, and TPH-G and BTEX by Method NWTPH-Gx. In addition, one sample was analyzed for PAHs by Method 8270C, at the request of the Ecology representative.
- Based on the field observations and the analytical results, the TPH-D and TPH-G concentrations in soil at the excavation for Tank 5 were below the applicable cleanup levels, but the TPH-D concentrations in soil at the excavation for Tanks 1 through 4 were greater than the cleanup level; local groundwater contamination by petroleum hydrocarbons was also observed. Following consultation with Ecology, no additional soil was removed and the excavations were backfilled with clean imported fill material.
- In the summer of 2001, sediment and other debris were removed from the intertidal area of the subject property where previous characterization sampling had indicated the presence of mercury and bis(2-ethylhexyl)phthalate at concentrations greater than the SMS CSLs. The area was backfilled with a 6-to 24-inch-thick layer of imported fill material approved by WDFW. The removed sediment and debris was transported off site for disposal in accordance with the applicable regulations.
- After the sediment removal was completed, 10 sediment performance monitoring samples were collected from five locations within the intertidal area at the subject property to document post-removal conditions. Two samples consisting of one shallow sample from 0 to 4 inches below the surface and one deeper sample from the fill/native sediment interface or about 1 ft below the surface, whichever was encountered first, were collected from each sample location.



- The samples were submitted for laboratory analysis for TPH-D, TPH-O, SVOCs, selected metals (i.e., arsenic, cadmium, chromium, copper, lead, silver, zinc, and mercury), and TOC. Grain size analysis was also conducted.
- The conclusions from the sediment performance monitoring were that the sediment remedial action had effectively reduced the contaminant levels to below the CSLs and SQS, and that the layer of WDFW-approved fill provides a cap over any residual contamination that is present in the underlying native sediment.
- Following the remedial actions, two groundwater monitoring wells were installed at the subject property, and a groundwater monitoring program was implemented to document petroleum hydrocarbon concentrations in groundwater. Groundwater samples were collected from the two monitoring wells between January 2002 and June 2005, and for four consecutive rounds in June 2008, December 2008, March 2009, and June 2009 to document the TPH-D and TPH-O concentrations in groundwater and assess compliance with the MTCA Method A cleanup level. The analytical results indicated that the TPH-D and TPH-O concentrations in the groundwater samples collected from both monitoring wells were all below the MTCA Method A cleanup level for the four consecutive sampling events conducted from June 2008 through June 2009.

Based on the soil, sediment, and groundwater compliance monitoring data, the remedial actions have successfully addressed contaminant concentrations at the subject property greater than the applicable regulatory levels, including the MTCA Method A cleanup levels and the SMS CSLs and SQS. The impacted soil and sediment have been removed and disposed of offsite per the applicable regulations, and the resulting conditions at the subject property are protective of human health and the environment. As documented in this Remedial Action Report, the investigative and remedial actions at the subject property have been completed in accordance with the AO, and a No Further Action determination is warranted for the subject property.

As noted above, Silver Cloud Inns is submitting this report for Ecology review in accordance with Element 6 of the 7 elements outlined in Section IV – “Work To Be Performed” of the AO. This report, in conjunction with previous reports submitted and approved by Ecology, meets the requirements of Element 6 and documents that the remedial investigation and remedial action have been completed as required in Elements 1 through 5 of Attachment A. Element 7 will be completed following receipt of Ecology comments regarding this report and submittal of a final version of this report to Ecology.

## 7.0 USE OF THIS REPORT

This Remedial Action Report has been prepared for the exclusive use of Silver Cloud Inns, their legal representatives, their authorized users, and regulatory agencies for specific application to the subject property. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau Associates. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

This document has been prepared under the supervision and direction of the following key staff.

LANDAU ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Timothy L. Syverson". The signature is fluid and cursive, with a large initial "T" and "S".

Timothy L. Syverson, L.G.  
Senior Associate Geologist

TLS/SJL/ccy

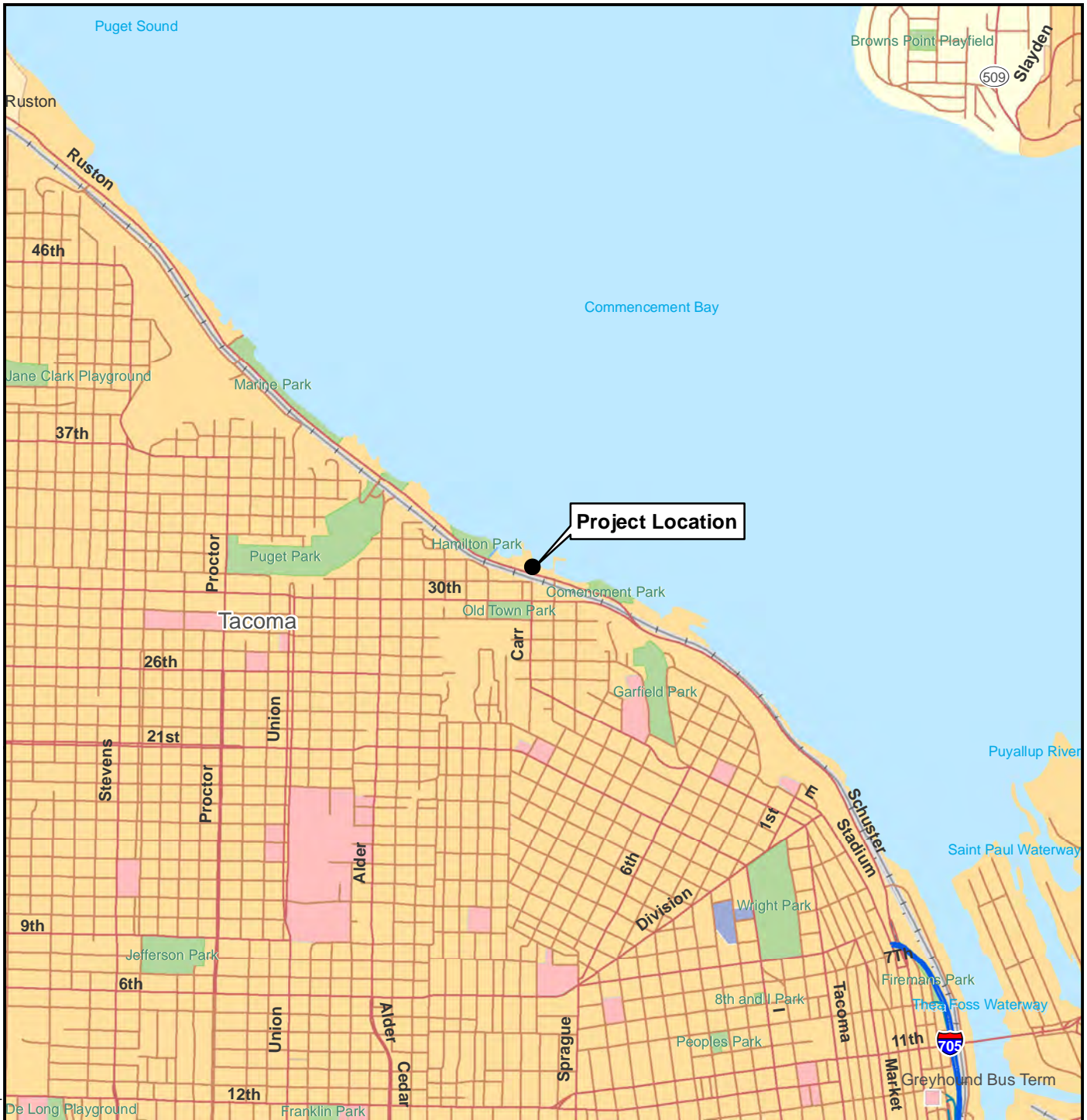
## 8.0 REFERENCES

CDM. 2009. Letter Report: *Groundwater Monitoring Report, Tacoma Silver Cloud Inn, 2317 Ruston Way, Tacoma, Washington 98402*. From Howard Young, L.G., Camp Dresser & McKee Inc., to Jim Korbein, Silver Cloud Inns. July 13.

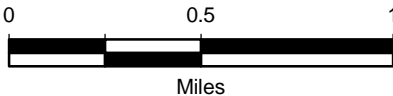
CDM. 2002. Draft: *Sediment Sampling Report, Tacoma Silver Cloud Inn, 2317 Ruston Way, Tacoma, Washington*. Camp Dresser and McKee Inc. Prepared for Tacoma Silver Cloud Inn. June 26.

CDM. 2000. Report: *UST Closure Site Assessment, Silver Cloud Hotel, Tacoma, Washington*. Camp Dresser & McKee Inc. Prepared for Pacific Environmental Services Company. June 26.

Ecology. 2000. *Agreed Order No. DE 99TCPSR-25, in the Matter of Remedial Action by Tacoma Silver Cloud Inn LLC*. Washington State Department of Ecology Effective date: September 8.



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Data Source: ESRI 2008



Silver Cloud Inns  
Tacoma, Washington

Vicinity Map

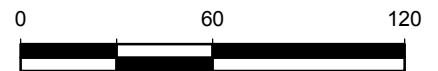
Figure  
1

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**Note**

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.



Scale in Feet

Data Source: Camp Dresser & McKee 2000; ESRI World Imagery.

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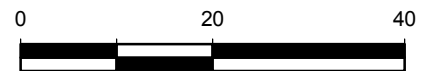


**Legend**

- Soil Performance Monitoring Location
- ⊕ Groundwater Monitoring Well and Confirmation Sampling Location
- ▭ Former Underground Storage Tank Location
- ▭ (Orange outline) Approximate Limits of Soil Excavation

**Note**

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.



Scale in Feet

Data Source: Camp Dresser & McKee, 2000; ESRI World Imagery.



Silver Cloud Inns  
Tacoma, Washington

**Soil and Groundwater  
Sampling Locations**

Figure  
**3**



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**Legend**

- Groundwater Monitoring Well
- RA Sediment Performance Monitoring Location (CDM 2000)
- Pre-RA Sediment Sampling Location (GeoEngineers 1999)
- Former Underground Storage Tank Location

**Note**

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.



Scale in Feet

Data Source: Camp Dresser & McKee 2000; ESRI World Imagery.



Silver Cloud Inns  
Tacoma, Washington

**Sediment Sampling Locations**

Figure  
**4**

## **Tables from Previous Investigation Reports**



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## **Camp Dresser & McKee Inc. 2000 Tables**

**Table 1**

**Total Petroleum Hydrocarbons and Polycyclic Aromatic Hydrocarbons in Soil**

**By BTEX, NWTPH-G, NWTPH-Dx, and EPA Method 8270**

Pesco/Silver Cloud

Tacoma, Washington

Compound	Practical Quantitation Limit (mg/kg)	Sample ID.								Method A Soil Cleanup Levels (mg/kg)	
		1	2	3	4	5	6	7	8		
Benzene	0.054-0.32	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5
Toluene	0.054-0.32	ND	ND	ND	ND	ND	ND	ND	ND	ND	40
Ethylbenzene	0.054-0.32	ND	ND	ND	ND	ND	ND	ND	ND	ND	20
m,p-Xylene	0.054-0.32	0.34	ND	ND	ND	0.40	ND	ND	ND	ND	20
o-Xylene	0.054-0.32	0.33	ND	ND	0.42	0.44	ND	ND	ND	ND	20
<b>Total Petroleum Hydrocarbons</b>											
<b>by NWTPH-G</b>											
Gasoline	5.4-32	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
<b>by NWTPH-Dx</b>											
Diesel	27-32	510	ND	ND	2,800	3,900	150	110	130	ND	200
Heavy Oil	54-64	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
<b>PAHs by EPA Method 8270C</b>											
Naphthalene	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	--
2-Methylnaphthalene	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	--
Acenaphthylene	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	--
Acenaphthene	0.12	NA	NA	NA	0.15	NA	NA	NA	NA	NA	--
Fluorene	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	--
Phenanthrene	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	--
Anthracene	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	--
Fluoranthene	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	--
Pyrene	0.12	NA	NA	NA	0.13	NA	NA	NA	NA	NA	--
Benzo (a) anthracene *	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	1.0
Chrysene *	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	1.0
Benzo (b) fluoranthene *	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	1.0
Benzo (k) fluoranthene *	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	1.0
Benzo (a) pyrene *	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	1.0
Indeno (1,2,3-cd) pyrene *	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	1.0
Dibenzo (a,h) anthracene *	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	1.0
Benzo (g,h,i) perylene *	0.12	NA	NA	NA	ND	NA	NA	NA	NA	NA	1.0

Note:

\*Carcinogenic PAHs.

Boxed values exceed Method A cleanup level.

-- not established.

mg/kg - Milligrams per kilogram.

NA - not analyzed.

ND - not detected.

**Table 2**  
**Total Petroleum Hydrocarbons in Stockpile Soil**  
**By BTEX, NWTPH-G, and NWTPH-Dx**  
 Pesco/Silver Cloud  
 Tacoma, Washington

Compound	Practical Quantitation Limit (mg/kg)	Sample I.D. Stockpile mg/kg	Method A Soil Cleanup Levels mg/kg
Benzene	0.31	ND	0.5
Toluene	0.31	ND	40
Ethylbenzene	0.31	ND	20
m,p-Xylene	0.31	1.9	20
o-Xylene	0.31	0.31	20
<b><u>Total Petroleum Hydrocarbons</u></b>			
<b><u>by NWTPH-G</u></b>			
Gasoline	31	ND	100
<b><u>by NWTPH-Dx</u></b>			
Diesel	150	6,500	200
Heavy Oil	120	ND	200

Note:

Boxed value exceeds Method A cleanup level.  
 mg/kg - Milligrams per kilogram.  
 ND - not detected.

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## **Camp Dresser & McKee Inc. 2002 Tables**

**Table 1**  
**Analytical Results for Total Petroleum Hydrocarbons**  
 Tacoma Silver Cloud Inn/Sediment Sampling Report  
 Tacoma, Washington

Compound	SED-1-1	SED-1-2	SED-2-1	SED-2-2	SED-3-1	SED-3-2	SED-4-1	SED-4-2	SED-5-1	SED-5-2	Method A Cleanup Levels <sup>a</sup>
<b>Total Petroleum Hydrocarbons (mg/kg)</b>											
<b>NWTPH-Dx Modified</b>											
#2 Diesel	<14.9	60.9	<14.8	172	<13.4	<13.7	<14.4	78.9	<14.1	<14.1	2,000
Motor Oil	126	665	67.4	1,560	193	50.6 J	38.4 J	972	86.1	<28.3	2,000

Notes:

Sample date: January 8, 2002.

a) Washington Administrative Code Chapter 173-340, Model Toxics Control Act Cleanup Regulation, Method A suggested soil cleanup level for unrestricted land uses; updated August 15, 2001.

J - estimated value.

mg/kg - milligrams per kilogram.

**Table 2**  
**Analytical Results for Metals**  
 Tacoma Silver Cloud Inn/Sediment Sampling Report  
 Tacoma, Washington

Compound	SED-1-1	SED-1-2	SED-2-1	SED-2-2	SED-3-1	SED-3-2	SED-4-1	SED-4-2	SED-5-1	SED-5-2	Sediment Quality Standard	SIZ <sub>max</sub> CSL, MCUL
<b>Metals (mg/kg)</b>												
<b>ICP - EPA Method 6010</b>												
Arsenic	<2.35	2.85	<2.05	<4.52	<2.25	<2.14	<2.17	<2.08	<2.29	<2.06	57	93
Cadmium	<1.18	<1.05	<1.03	<2.26	<1.13	<1.04	<1.09	<1.04	<1.15	<1.03	5.1	6.7
Chromium	8	11.8	8.07	14.7	5.96	10.1	10.8	9.57	8.98	8.91	260	270
Copper	19.2	34	12.2	54.7	8.92	21.5	12.9	13.3	14.2	13.9	390	390
Lead	6.26	28.3	5.59	49	3.11	3.46	3.8	16.6	4.39	2.82	450	530
Silver	<2.35	<2.09	<2.05	<4.52	<2.25	<2.14	<2.17	<2.08	<2.29	<2.06	6.1	6.1
Zinc	30	40.9	19.8	86.8	12	21.5	20.1	19.3	23	20.9	410	960
<b>EPA Method 7471 (mg/kg)</b>												
Mercury	<0.0214	0.186	0.026	0.357	<0.0195	<0.0262	0.0219	0.0636	0.0251	<0.0236	0.41	0.59

Notes:  
 Sample date: January 8, 2002.  
 CSL - cleanup screening level.  
 MCUL - minimum cleanup level.  
 SIZ<sub>max</sub> - Sediment Impact Zone maximum allowable contamination level (WAC 173-204-420).  
 mg/kg - milligrams per kilogram.

**Table 3**  
**Analytical Results for TOC and SVOCs**  
 Tacoma Silver Cloud Inn/Sediment Sampling Report  
 Tacoma, Washington

Compound	SED-1-1		SED-1-2		SED-2-1		SED-2-2		SED-3-1		SED-3-2		Sediment Quality Standard	SIZ <sub>max</sub> CSL, NGUL
	TOC	DWB	TOC	DWB	TOC	DWB	TOC	DWB	TOC	DWB	TOC	DWB		
<b>EPA Method 9060 (mg/kg)</b>														
TOC	1,180 0.12%		13,600 1.3%		1,020 0.1%		82,100 8.21%		2,400 0.24%		1,430 0.14%			
<b>SVOCs (µg/kg)</b>	Normalized to		Normalized to		Normalized to		Normalized to		Normalized to		Normalized to			
<b>EPA Method 8270C</b>	<b>TOC</b>	<b>DWB</b>	<b>TOC</b>	<b>DWB</b>	<b>TOC</b>	<b>DWB</b>	<b>TOC</b>	<b>DWB</b>	<b>TOC</b>	<b>DWB</b>	<b>TOC</b>	<b>DWB</b>		
Phenol	<31.5	<32	<30.3	<32	<30.3	<30.3	<63.2	<30.3	<27.4	<27.4	<27.4	<27.4	420	1,200
1,3-Dichlorobenzene	<18,700	<22.1	<1,650	<22.4	<20,800	<21.2	<539	<44.3	<8,010	<19.2	<13,400	<19.2		
1,4-Dichlorobenzene	<21,400	<25.2	<1,880	<25.6	<23,800	<24.3	<616	<50.6	<9,150	<22	<15,300	<21.9	3,100	9,000
Benzyl Alcohol	<33.1	<33.6	<31.9	<33.6	<31.9	<31.9	<66.4	<31.9	<28.8	<28.8	<28.8	<28.8	57	73
1,2-Dichlorobenzene	<13,800	<16.2	<1,210	<16.5	<15,300	<15.6	<397	<32.6	<5,890	<14.1	<9,880	<14.1	2,300	2,300
2-Methylphenol	<18.9	<19.2	<18.2	<19.2	<18.2	<18.2	<37.9	<18.2	<16.5	<16.5	<16.5	<16.5	63	63
3- & 4-Methylphenol	<23.3	<23.7	<22.5	<23.7	<22.5	<22.5	<46.8	<22.5	<20.3	<20.3	<20.3	<20.3	670	670
Hexachloroethane	<25,400	<30	<2,240	<30.4	<28,300	<28.8	<732	<60.1	<10,900	<26.1	<18,200	<26.1		
2,4-Dimethylphenol	<17.3	<17.6	<16.7	<17.6	<16.7	<16.7	<34.8	<16.7	<15.1	<15.1	<15.1	<15.1	29	29
Benzoic Acid	<53.6	<54.5	<51.6	<54.5	<51.6	<51.6	<107	<51.6	<46.7	<46.7	<46.7	<46.7	650	650
1,2,4-Trichlorobenzene	<11,100	<13.1	<978	<13.3	<12,300	<12.6	<320	<26.2	<4,750	<11.4	<7,960	<11.4	810	1,800
Naphthalene	<6,250	<7.38	<551	<7.5	<6,960	<7.1	1,160	94.8	<2,680	<6.42	<4,490	<6.42	99,000	170,000
Hexachlorobutadiene	<12,000	<14.2	<1,060	<14.4	<13,400	<13.7	<347	<28.5	<5,150	<12.4	<8,630	<12.3	3,900	6,200
2-Methylnaphthalene	<2,080	<2.46	<184	<2.5	<2,320	<2.37	1,540	126	<892	<2.14	9,590	13.7	38,000	64,000
Dimethylphthalate	<14,700	<17.3	2,360 J	32 J	<16,400	<16.7	5,780	474	<6,290	<15.1	<10,500	<15.1	53,000	53,000
Acenaphthylene	<5,830	<6.88	<514	<6.98	<6,480	<6.61	<168	<13.8	<2,490	<5.98	<4,180	<5.98	66,000	66,000
Acenaphthene	<6,620	<7.81	<583	<7.93	<7,360	<7.51	14,600	1,200	<2,830	<6.79	<4,750	<6.79	16,000	57,000
Dibenzofuran	<15,500	<18.3	<1,370	<18.6	<17,300	<17.6	1,930 J	158 J	<6,630	<15.9	<11,100	<15.9	15,000	58,000
Diethylphthalate	<22,700	<26.8	<2,000	<27.2	<25,300	<25.8	<655	<53.7	<9,720	<23.3	<16,300	<23.3	61,000	110,000
Fluorene	<6,240	<7.36	<550	<7.48	<6,950	<7.08	10,400	854	<2,670	<6.41	<4,480	<6.4	23,000	79,000
N-Nitrosodiphenylamine	<10,700	<12.6	<942	<12.8	<11,900	<12.1	<308	<25.3	<4,570	<11	<7,670	<11	11,000	11,000
Hexachlorobenzene	<14,700	<17.3	<1,300	<17.6	<16,400	<16.7	<424	<34.8	<6,290	<15.1	<10,500	<15.1	380	2,300
Pentachlorophenol	<33.1	<33.6	<33.6	<33.6	<31.9	<31.9	<66.4	<31.9	<28.8	<28.8	<28.8	<28.8	360,000	290,000
Phenanthrene	<2,850	<3.36	2,360	32	<3,170	<3.23	<82	<6.73	<1,220	<2.92	<2,040	<2.92	100,000	480,000
Anthracene	<3,370	<3.97	1,180	16	<3,750	<3.82	65,800	5,410	5,720	13.7	<2,420	<3.46	220,000	1,200,000
Di-n-butylphthalate	<116,000	<137	<10,200	<139	<129,000	<132	782,000 B, D	128,000 B, D	<49,800	<119	<83,400	<119	220,000	1,700,000

→ 1,700 ← 5,100

**Table 3**  
**Analytical Results for TOC and SVOCs**  
 Tacoma Silver Cloud Inn/Sediment Sampling Report  
 Tacoma, Washington

Compound	SED-1-1		SED-1-2		SED-2-1		SED-2-2		SED-3-1		SED-3-2		Sediment Quality Standard	SIZ <sub>max</sub> CSL MCOL
<b>Semivolatile Organic Compounds (µg/kg) (cont.)</b>														
Fluoranthene	13,400	15.8	5,890	80.1	14,900	15.2	50,800	4,170	<2,670	<6.41	9,590	13.7	160,000	1,200,000
Pyrene	13,400	15.8	5,890	80.1	14,900	15.2	53,500	4,390	<1,890	<4.53	9,590	13.7	1,000,000	1,400,000
Butylbenzylphthalate	<25,400	<30	<11,800	<30.4	<28,300	<28.8	<732	<60.1	<10,900	<26.1	<18,200	<26.1	4,900	64,000
Benzo(a)anthracene	<8,150	<9.62	<2,360	<9.77	44,600	45.5	18,900	1,550	<3,490	<8.37	<5,850	<8.36	110,000	270,000
Chrysene	<7,850	<9.26	<2,360	<9.4	<8,730	<8.91	22,700	1,870	<3,360	<8.06	9,590 J	13.7 J	110,000	460,000
bis(2-Ethylhexyl)phthalate	<54,800	<64.7	<29,400	<65.7	<61,000	<62.2	8,090 J	664	<23,400	<56.3	<39,300	<56.2	47,000	78,000
Di-n-octylphthalate	<34,700	<41	<11,800	<41.7	<38,700	<39.4	<1,000	<82.2	<14,900	<35.7	<24,900	<35.7	58,000	4,500,000
Total Benzofluoranthenes <sup>a</sup>	<5,880	<6.94	<2,360	<7.05	<6,540	<6.68	22,300	1,830	<2,520	<6.04	<4,220	<6.03	230,000	450,000
Benzo(a)pyrene	<7,850	<9.26	<1,180	<9.4	<8,730	<8.91	19,600	1,610	<3,360	<8.06	<5,630	<8.05	99,000	210,000
Indeno(1,2,3-cd)pyrene	<3,110	<3.67	<1,180	<3.73	<3,470	<3.53	5,390	443	<1,330	<3.2	<2,230	<3.19	34,000	88,000
Dibenz(a,h)anthracene	<3,110	<3.67	<1,180	<3.73	<3,470	<3.53	<89.7	<7.37	<1,330	<3.2	<2,230	<3.19	12,000	33,000
Benzo(g,h,i)perylene	<2,210	<2.6	<1,180	<2.64	<2,450	<2.5	6,160	506	<944	<2.26	<1,580	<2.26	31,000	78,000



**Table 3**  
**Analytical Results for TOC and SVOCs**  
 Tacoma Silver Cloud Inn/Sediment Sampling Report  
 Tacoma, Washington

Compound	SED-4-1		SED-4-2		SED-5-1		SED-5-2		Sediment Quality Standard	SIZ <sub>max</sub> CSL MCLL
	TOC	DWB	TOC	DWB	TOC	DWB	TOC	DWB		
<b>EPA Method 9060 (mg/kg)</b>										
TOC	883 0.09%		14,300 1.4%		1,010 0.1%		938 0.09%			
<b>SVOCs (µg/kg)</b>	Normalized to		Normalized to		Normalized to		Normalized to			
<b>EPA Method 8270C</b>	<b>TOC</b>	<b>DWB</b>	<b>TOC</b>	<b>DWB</b>	<b>TOC</b>	<b>DWB</b>	<b>TOC</b>	<b>DWB</b>		
Phenol		<31.6		<32.2		<29.5		<29	420	1,200
1,3-Dichlorobenzene	<25,100	<22.1	<1,580	<22.5	<20,400	<20.6	<21,600	<20.3		
1,4-Dichlorobenzene	<28,700	<25.3	<1,800	<25.8	<23,300	<23.6	<24,700	<23.2	3,100	9,000
Benzyl Alcohol		<33.2		<33.8		<30.9		<30.5	57	73
1,2-Dichlorobenzene	<18,400	<16.3	<1,160	<16.6	<15,000	<15.2	<15,900	<14.9	2,300	2,300
2-Methylphenol		<19		<19.3		<17.7		<17.4	63	63
3- & 4-Methylphenol		<23.4		193		<21.8		<21.5	670	670
Hexachloroethane	<34,000	<30	<2,140	<30.6	<27,700	<28	<29,400	<27.6		
2,4-Dimethylphenol		<17.4		<17.7		<16.2		<16	29	29
Benzoic Acid		<53.8		<54.7		<50.1		<49.3	650	650
1,2,4-Trichlorobenzene	<14,900	<13.1	<934	<13.4	<12,100	<12.2	<12,800	<12	810	1,800
Naphthalene	<8,380	<7.4	19,100	274	<6,830	<6.89	<7,240	<6.79	99,000	170,000
Hexachlorobutadiene	<16,100	<14.2	<1,010	<14.5	<13,100	<13.3	<13,900	<13.1	3,900	6,200
2-Methylnaphthalene	<2,790	<2.47	5,630	80.5	<2,280	<2.3	<2,410	<2.26	38,000	64,000
Dimethylphthalate	<19,700	<17.4	<1,240	<17.7	<16,000	<16.2	<17,000	<16	53,000	53,000
Acenaphthylene	<7,810	<6.89	<491	<7.02	<6,360	<6.42	<6,740	<6.32	66,000	66,000
Acenaphthene	<8,860	<7.83	10,100	145	<7,220	<7.29	<7,650	<7.18	16,000	57,000
Dibenzofuran	<20,800	<18.3	7,880 J	113 J	<16,900	<17.1	<17,900	<16.8	15,000	58,000
Diethylphthalate	<30,400	<26.9	2,250 J	32.2 J	<24,800	<25	<26,300	<24.7	61,000	110,000
Fluorene	<8,360	<7.38	10,100	145	<6,810	<6.88	<7,220	<6.77	23,000	79,000
N-Nitrosodiphenylamine	<14,300	<12.7	<901	<12.9	<11,700	<11.8	<12,400	<11.6	11,000	11,000
Hexachlorobenzene	<19,700	<17.4	<1,240	<17.7	<16,000	<16.2	<17,000	<16	380	2,300
Pentachlorophenol		<33.2		<33.8		<30.9		<30.5	360,000	290,000
Phenanthrene	<3,810	<3.37	29,300	419	<3,110	<3.14	<3,290	<3.09	100,000	480,000
Anthracene	<4,510	<3.98	11,300	161	<3,680	<3.71	<3,900	<3.65	220,000	1,200,000
Di-n-butylphthalate	<156,000	<138	<9,790	<140	<127,000	<128	<135,000	<126	220,000	1,700,000

**Table 3**  
**Analytical Results for TOC and SVOCs**  
 Tacoma Silver Cloud Inn/Sediment Sampling Report  
 Tacoma, Washington

Compound	SED-4-1		SED-4-2		SED-5-1		SED-5-2		Sediment Quality Standard	SIZ <sub>max</sub> CSL, MCUL
<b>Semivolatile Organic Compounds (µg/kg) (cont.)</b>										
Fluoranthene	17,900	15.8	19,100	274	<6,810	<6.88	<7,220	<6.77	160,000	1,200,000
Pyrene	<5,910	<5.22	13,500	193	14,600	14.7	<5,100	<4.79	1,000,000	1,400,000
Butylbenzylphthalate	<34,000	<30	<2,140	<30.6	<27,700	<28	<29,400	<27.6	4,900	64,000
Benzo(a)anthracene	<10,900	<9.65	9,010	129	<8,900	<8.98	<9,430	<8.85	110,000	270,000
Chrysene	<10,500	<9.28	9,010	129	<8,560	<8.65	<9,080	<8.51	110,000	460,000
bis(2-Ethylhexyl)phthalate	<73,400	<64.8	<4,620	<66	<59,800	<60.4	<63,400	<59.5	47,000	78,000
Di-n-octylphthalate	<46,600	<41.1	<2,930	<41.9	<37,900	<38.3	<40,200	<37.7	58,000	4,500,000
Total Benzofluoranthenes <sup>a</sup>	<7,880	<6.96	<495	<7.08	<6,420	<6.48	<6,800	<6.38	230,000	450,000
Benzo(a)pyrene	<10,500	<9.28	<661	<9.45	<8,560	<8.65	<9,080	<8.51	99,000	210,000
Indeno(1,2,3-cd)pyrene	<4,170	<3.68	<262	<3.75	<3,400	<3.43	<3,600	<3.38	34,000	88,000
Dibenz(a,h)anthracene	<4,170	<3.68	<262	<3.75	<3,400	<3.43	<3,600	<3.38	12,000	33,000
Benzo(g,h,i)perylene	<2,950	<2.61	<186	<2.66	<2,410	<2.43	<2,550	<2.39	31,000	78,000

Notes:

Sample date: January 8, 2002.

a) The total benzofluoranthenes criteria are to be compared to the sums of the concentrations of b, j, and k isomers of benzofluoranthene.

B - This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than 10 times the concentration reported in the blank).

CSL - cleanup screening level.

D - The reported result for this analyte was calculated based on a secondary dilution factor of 20.

DWB - dry-weight basis.

J - estimated value.

MCUL - minimum cleanup level.

SIZ<sub>max</sub> - Sediment Impact Zone maximum allowable contamination level (WAC 173-204-420).

TOC - total organic compounds.

SVOC - semivolatile organic compounds.

mg/kg - milligrams per kilogram.

µg/kg - micrograms per kilogram.

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## **Camp Dresser & McKee Inc. 2009 Table**

**Table 1**  
**Groundwater Analytical Results**  
 Tacoma Silver Cloud Inn/Groundwater Monitoring  
 Tacoma, Washington

MW-1	01/10/02	1.46	0.537
	08/08/02	3.1	<0.41
	01/15/03	2.4	0.46
	06/03/05	0.89	0.40
	6/24/2008	<0.25	<0.40
	12/31/2008	<0.25	<0.41
	3/10/2009	<0.25	<0.40
	6/25/2009	<0.25	<0.40
MW-2	01/10/02	3.69	1.4
	08/08/02	3.0	<0.39
	01/15/03	2.3	<0.39
	06/03/05	5.3	<0.40
	6/24/2008	0.35	<0.40
	12/31/2008	0.29	<0.40
	3/10/2009	<0.25	<0.40
	6/25/2009 ✓	0.32	<0.40
Cleanup Levels <sup>a</sup>		0.5	0.5

Notes:

- a) Washington Administrative Code Chapter 173-340, Model Toxics Control Act Cleanup Regulation, Method A suggested groundwater cleanup level; updated August 15, 2001.  
 mg/L - milligrams per liter.