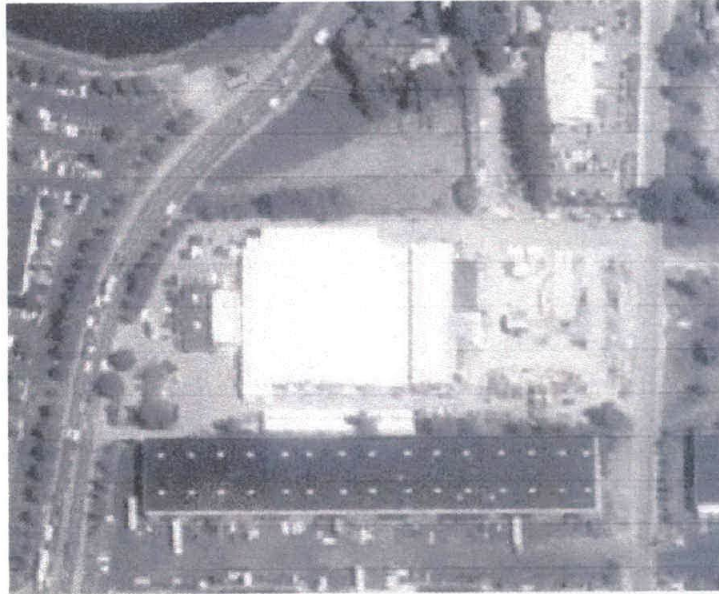


Coating Unlimited  
VCP# NW1172

## Limited Groundwater Sampling Project



Project Location:  
18420 68th Avenue S.  
Kent, Washington

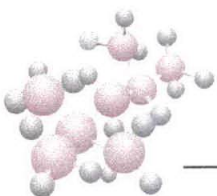
October 1, 2003

***Prepared for:***

Coatings Unlimited  
Greg Snider  
18420 68th Avenue S. #110  
Kent, Washington 98032

***Prepared by:***

Environmental Management Services, LLC  
652 8th Avenue  
Fox Island, Washington 98333  
(253) 921-7059  
[www.emsgroupllc.com](http://www.emsgroupllc.com)



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Environmental Management Services, LLC

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## **1.0 Introduction**

Environmental Management Services, LLC, (EMS) is pleased to provide our report of Limited Groundwater Sampling conducted at the Coatings Unlimited site in Kent, Washington. The site is shown relative to surrounding physical features in Figure 1. Our services were performed in general accordance with our proposals dated September 10, 2003 and September 24, 2003. John Wallace of Key Bank and Greg Snider of Coatings Unlimited authorized our services.

We understand that Mr. Snider is intending to purchase the site. As a portion of the due diligence prior to purchase, Mr. Snider authorized a Phase I Environmental Site Assessment (ESA) conducted by Environmental Associates, Inc. (EA). EA concluded that the site has not received a "No Further Action" determination from the Washington State Department of Ecology (Ecology) for the underground storage tanks removed from the property in 1987 and subsequent soil remediation in the area conducted in 1991. Additionally, EA stated that the extent of ground water contamination including vinyl chloride discovered in 2000 along the southern property line has not been characterized. The locations of these two areas are depicted in Figure 2. Further, a thin layer of sandblast grit containing cadmium and lead remains beneath a portion of one of the buildings following remediation in 1991.

The Phase I ESA was subsequently reviewed by LSI Adapt, Inc. In their review dated August 25, 2003, LSI Adapt generally agreed with the conclusions presented in Environmental Associates' report dated August 8, 2003. LSI Adapt recommended evaluating existing ground water conditions in the areas of the former underground storage tanks and of the vinyl chloride discovery along the southern property line.

### **1.1 Scope of Services**

EMS conducted the following tasks in general accordance with our proposals dated September 10, 2003 and September 24, 2003.

1. Review reports of previous environmental activities on the subject property.
2. Complete sampling of groundwater in Area 1 (former underground storage tank location) and Area 2 (area of identified vinyl chloride concentrations in ground water on southern adjacent property).
3. Provide for the chemical analysis of site specific contaminants of concern on selected samples.
4. Complete a sampling report detailing sampling activities and laboratory findings.
5. Complete and submit an application for the Voluntary Cleanup Program (VCP) to Ecology for a determination of "No Further Action" for the site.

## **2.0 Topography / Surface Hydrology**

The Site (Figure 1) is located approximately 25 feet above mean sea level. No surface water features are located within the immediate vicinity of the Site. The Green River is located approximately 1/4 mile northwest of the site across 68<sup>th</sup> Avenue S.

### **3.0 Geology And Groundwater Hydrology**

The Site lies within the Puget Sound Lowland, a north-trending topographic and structural trough between the Cascade Range to the east and the Olympic Mountains to the west. The trough formed a natural passageway for a succession of glacial advances from British Columbia during the Pleistocene Period. The most recent glacial advance, the Vashon Stade of the Fraser Glaciation, ended between 13,000 and 15,000 years ago. The soils in the Lowland have developed from glacial drift and associated lacustrine, marine, and alluvial deposits.

The subject site is underlain by silt, silty sand and sand deposited by the Green River, located approximately ¼ mile west of the site. These deposits tend to be laterally discontinuous and grade vertically in texture.

Shallow ground water in the area of the site occurs under unconfined (water table) conditions and is likely influenced by the proximity of the Green River. Ground water was generally encountered in the borings at depths of about 12 feet below ground surface. Recharge to the borings was generally slow. The inferred direction of ground water flow is to the northwest based on topography and the position of the Green River relative to the subject site. It is likely that local ground water flow directions may differ from this inferred direction due to buried channels within the river sediments.

### **4.0 Investigation Field Activities and Observations**

Previous reports provided by Coatings Unlimited and Key Bank were reviewed as part of this project. These reports were titled:

- Final Report, Soil Analysis Project, 18250 – 68th Avenue S, Kent, Washington dated March 23, 2000 by Terra Solve.
- Phase I Environmental Site Assessment, Industrial Park, 18250 - 18430 – 68th Avenue South, Kent, Washington dated August 8, 2003 by Environmental Associates.
- Third Party Peer Review, File No. Key W-030324-1735-1, Phase I Environmental Site Assessment Report and Settlement Agreement, Industrial Park, Coatings, Inc, 18250 – 18430 – 68th Avenue South, Kent, Washington" dated August 25, 2003 by LSI Adapt Inc.

Information provided in these reports was used to develop the scope of work for our limited study of the site.

#### **4.1 Soil Boring and Sampling**

We conducted soil and ground water sampling on September 22 and 29, 2003 at the Site using StrataProbe direct push drilling and sampling techniques. StrataProbe sampling conducted on September 22 was performed by Holt Drilling. StrataProbe sampling conducted on September 29 was performed by ESN Northwest using a limited access rig. The limited access rig was utilized to access areas along the southern property boundary that could not be accessed by Holt's StrataProbe rig and to further characterize the extent of contamination in ground water onto the subject property.

## **4.2 Area 1 – Former Underground Storage Tank Area**

Five StrataProbe borings were completed in the area of the former underground storage tank site on September 22, 2003. The approximate locations of the borings are shown in Figure 3. Soil samples recovered from the borings were screened in the field for the presence of petroleum hydrocarbons. Borings B4 & B5 encountered refusal on buried concrete at shallow depths (4 to 6 feet bgs) and were subsequently terminated. Logs of the borings are contained in Attachment A.

One soil sample (B3) and one ground water sample (B1) from Area 1 were submitted for analysis of gasoline-, diesel- and oil-range hydrocarbons using Ecology Method NWTPH-G and NWTPH-Dx, and for the presence of volatile organic compounds specifically benzene, ethylbenzene, toluene and xylenes (BETX) using EPA Method 8021B. Chemical analyses were performed by Libby Environmental, LLC of Olympia, Washington.

Analytical results for the soil and ground water samples from Area 1 did not indicate the presence of gasoline-, diesel- or oil-range hydrocarbons at concentrations exceeding the method detection limits. BETX were not detected in either of the samples. Analytical results for the samples from Area 1 are summarized in Table 1. Laboratory analytical reports are contained in Attachment B.

## **4.3 Area 2 – Southern Property Line**

Three StrataProbe borings were advanced in the area of the southern property line near the stormwater trough collection area. The locations of the borings are shown in Figure 4. Borings B-6, B-7 and B-8 were advanced on September 22, 2003. Due to the size of Holt's StrataProbe rig, the borings were inadvertently advanced on the neighboring property to the south extending over the property line by several inches. EMS subsequently mobilized a limited access StrataProbe rig from ESN Northwest on September 29 to resample ground water along the southern property line of the subject property within the property boundary and advance additional probes to delineate the extent of detected volatile organic compounds in ground water within the subject property.

Ground water samples collected from borings B-6, B-7 and B-8 were submitted to Libby Environmental for analysis of volatile organic compounds including chlorinated solvents using EPA Method 8021B. Vinyl chloride detected in the ground water sample from B-8 at a concentration of 15 micrograms per liter ( $\mu\text{g/l}$ ) was the only compound detected in these three samples.

Vinyl chloride also was detected in borings B-9, B-10 and B-13 at concentrations exceeding Ecology's Model Toxics Control Act (MTCA) Method A cleanup level for vinyl chloride in ground water of 0.2  $\mu\text{g/l}$ . Additionally, 1,2 dichloroethane was detected in borings B-10 and B-13 at concentrations exceeding the MTCA Method A cleanup level of 5.0  $\mu\text{g/l}$ . 1,2 dichloroethane either was not detected or was detected at concentrations less than 5.0  $\mu\text{g/l}$  in the remaining borings. No other volatile organic compounds were detected. Analytical results for Area 2 are summarized in Table 2. Laboratory analytical reports are contained in Attachment B.

## **5.0 Conclusions**

Based on the laboratory results from our limited study of the two areas at the site identified by EA and LSI Adapt in their reports, it appears that the area of the former underground storage tanks does not contain concentrations of petroleum hydrocarbons or BETX in soil or ground water at concentrations exceeding the respective MTCA Method A cleanup levels.

Vinyl chloride was detected in ground water samples from four borings conducted in Area 2 along the southern property line at concentrations exceeding the MTCA Method A cleanup level of 0.2 µg/l. 1,2 dichloroethane was detected in two of the borings in Area 2 at concentrations exceeding the MTCA Method A cleanup level of 5.0 µg/l.

Based on the distribution of the detected concentrations of vinyl chloride in the borings advanced as a part of this study, it appears that the contaminants are extending onto the subject property from the south. Additionally, it does not appear that the contaminants vinyl chloride and 1,2 dichloroethene extend more than approximately 60 feet onto the southern portion of the subject property. An approximate limit of the vinyl chloride contaminant plume is shown in Figure 4.

## **6.0 Limitations**

The findings and conclusions documented in this report have been prepared for the specific application to this project and have been developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area. A potential always remains for the presence of unknown, unidentified, or unforeseen subsurface contamination. No warranty, expressed or implied, is made. This report is for the exclusive use of Coatings Unlimited and / or their representatives.

If new information is developed in future site work (which may include excavations, additional borings, or other studies), EMS should be contracted to re-evaluate the interpretations in this report, and to provide amendments as required.

We appreciate the opportunity to be of service to Key Bank and Coatings Unlimited on this project. Please contact us if you have questions regarding the results of our limited study or, if we may provide additional information.

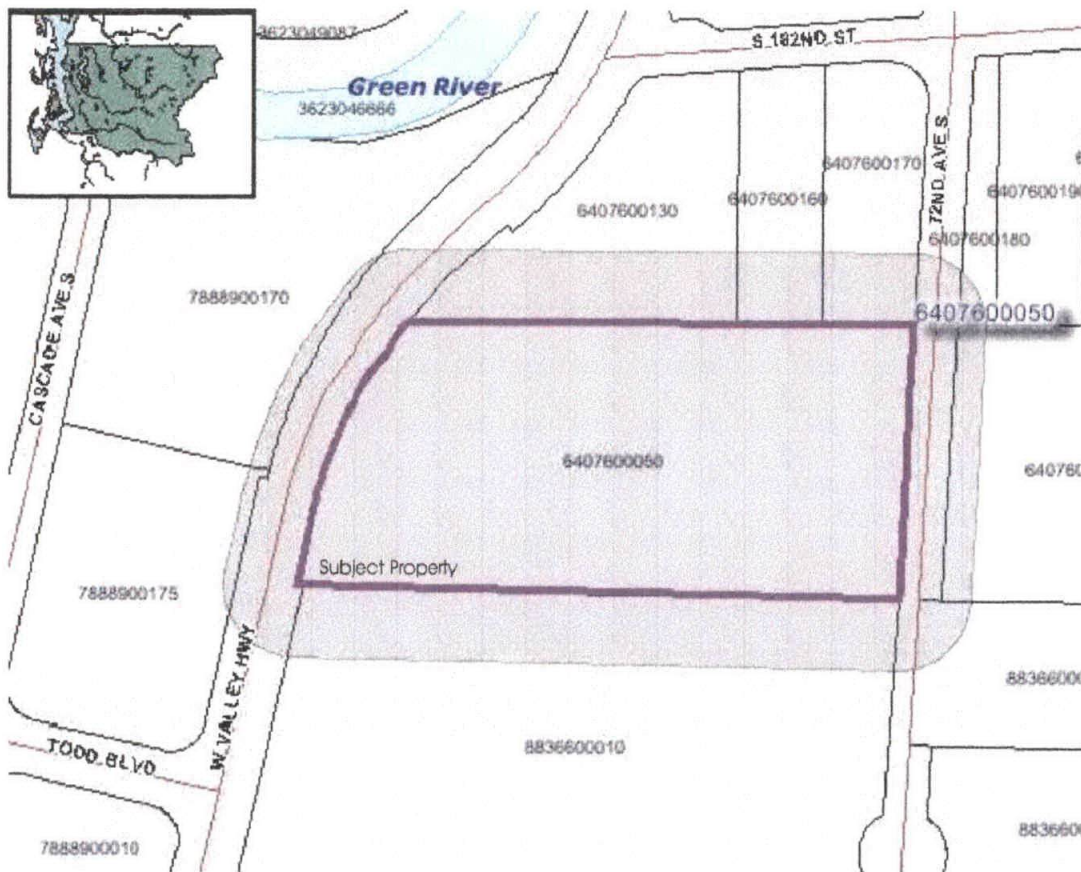
Respectfully Submitted,  
Environmental Management Services, LLC.

Stephen M. Spencer  
Project Scientist

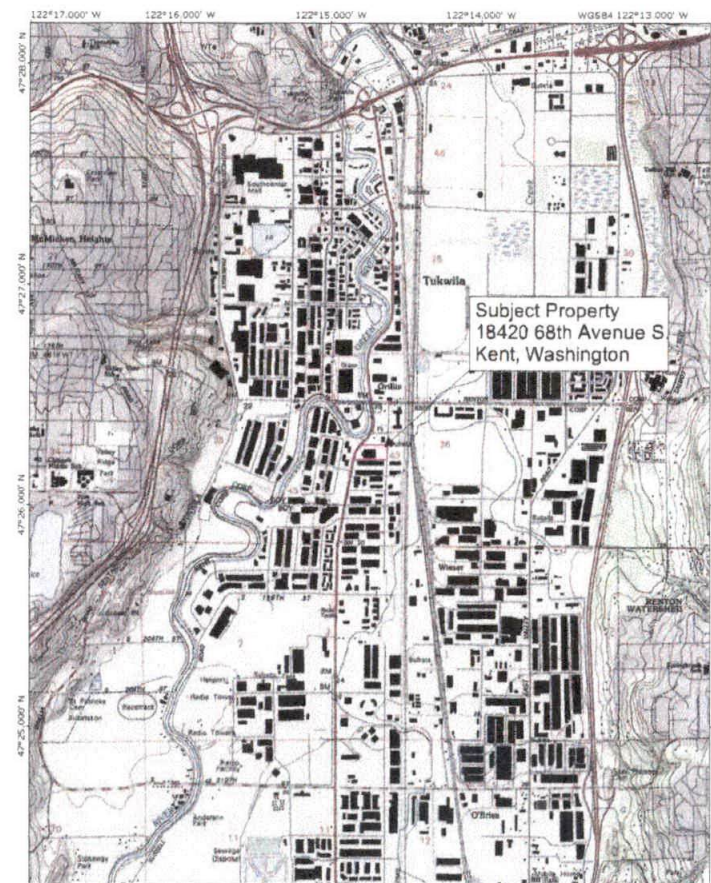
William E. Halbert, L.G., L.H.G.  
Project Hydrogeologist

## FIGURES





Site Vicinity & Parcel Map



USGS Topographic Map



Project No./Name: Coatings Unlimited  
Limited Subsurface Groundwater  
Sampling Event  
Location: 18420 68th Avenue  
Kent, Washington

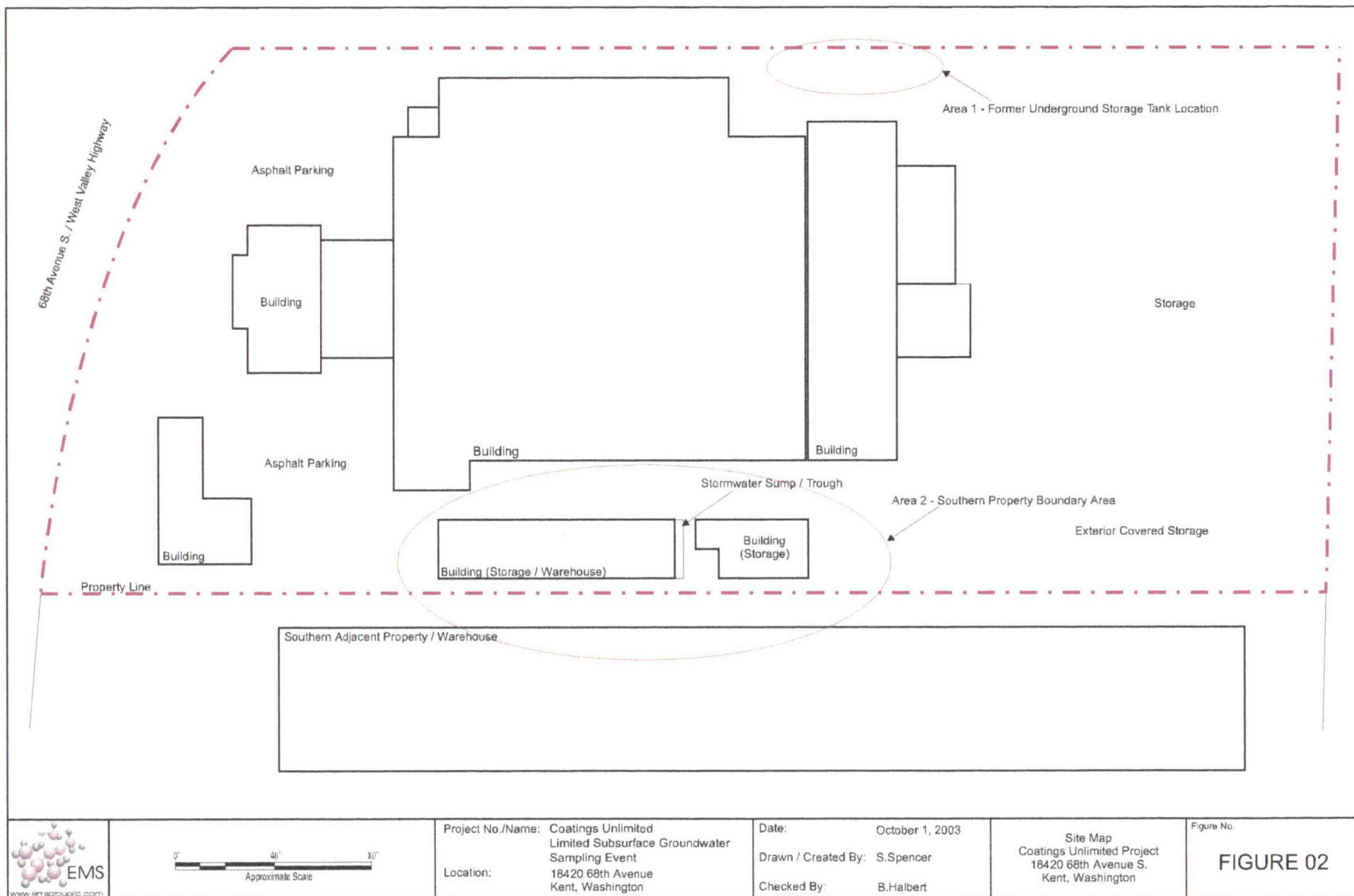
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Drawn / Created By: S.Spencer  
Checked By: B.Halbert

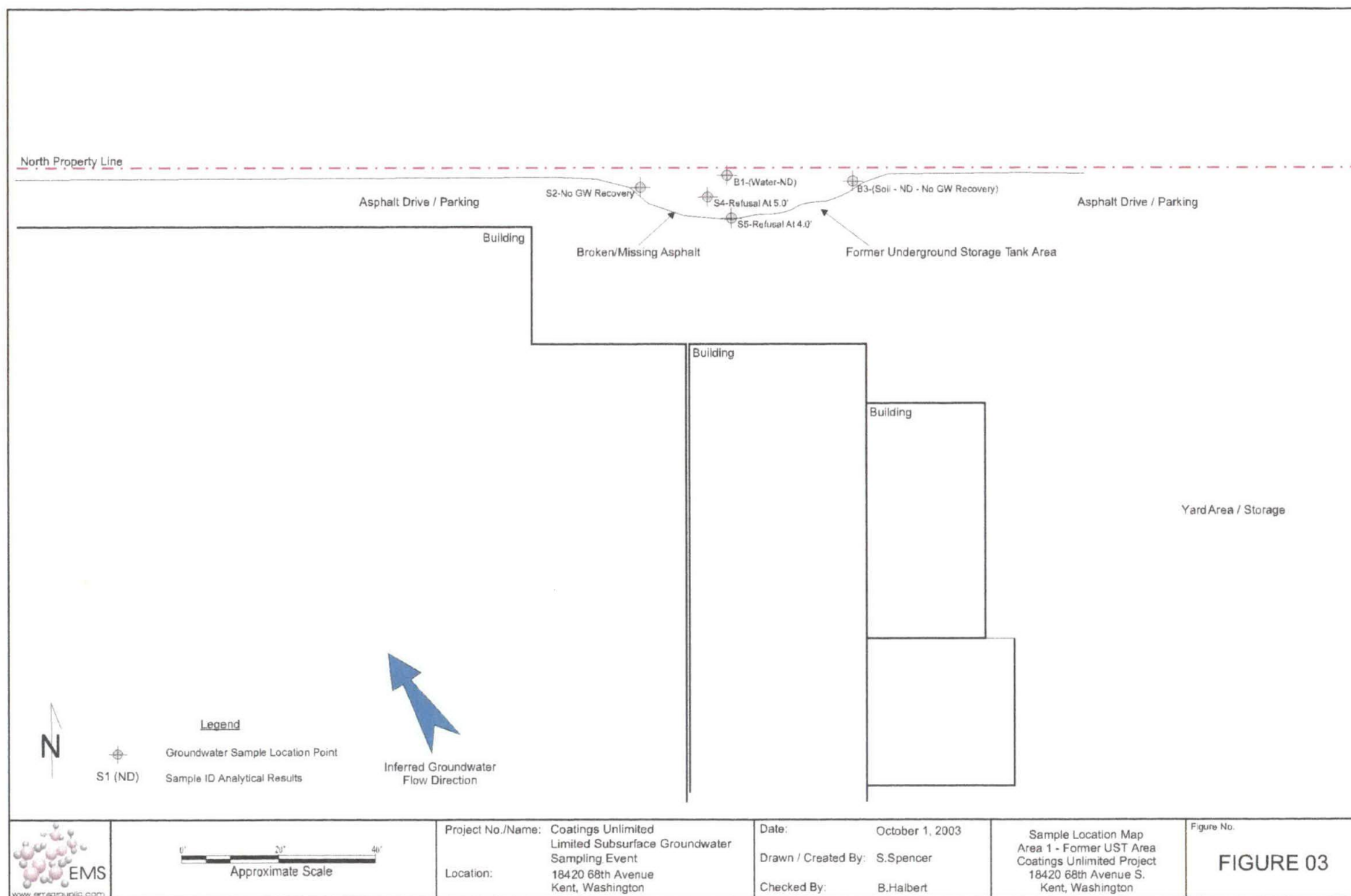
Site Location & Parcel Map  
Site Topographic Map  
Coatings Unlimited Project  
18420 68th Avenue S.  
Kent, Washington

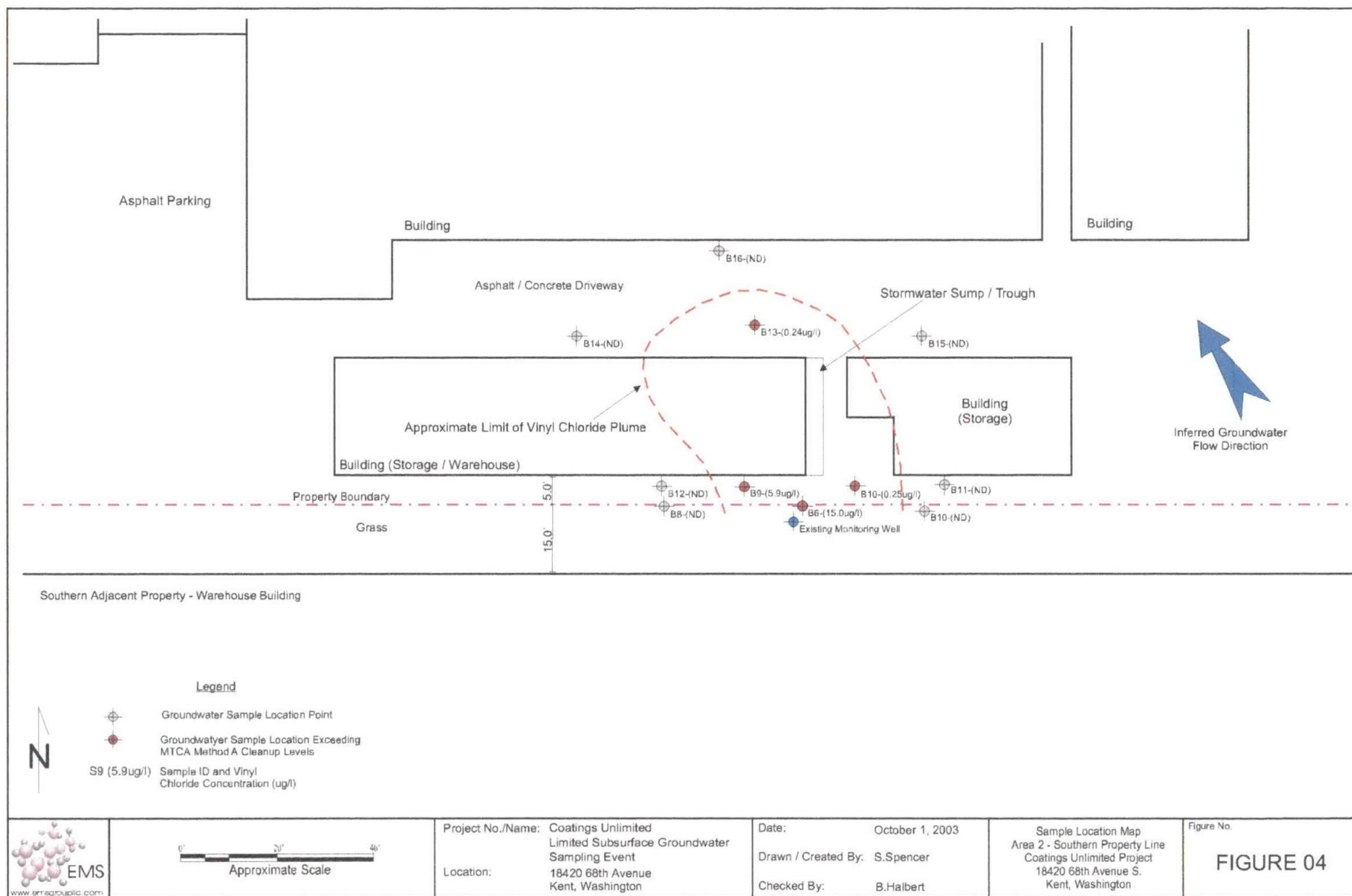
Figure No.

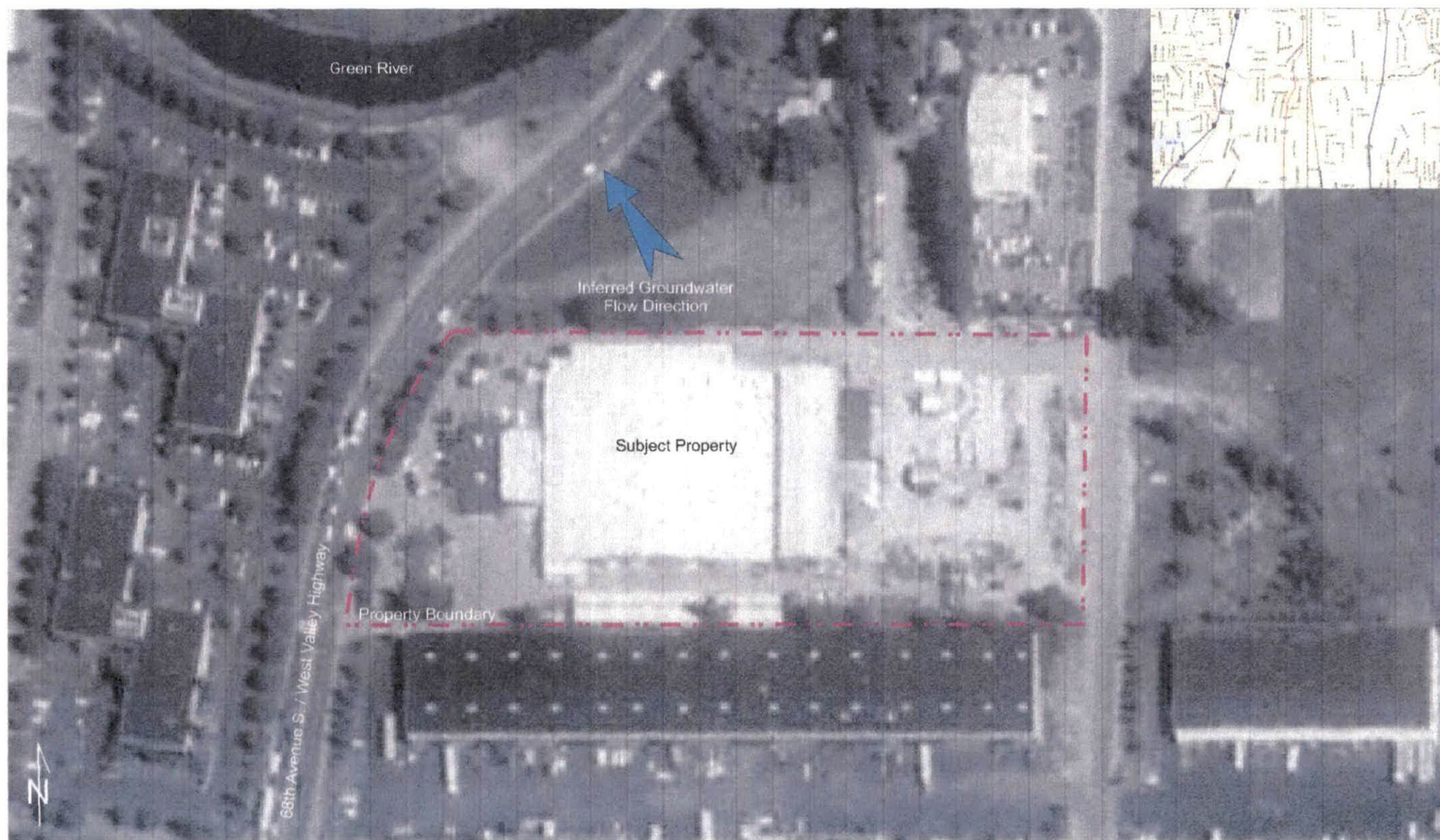
FIGURE 01



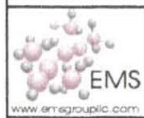








1990 Aerial Photograph



Project No./Name: Coatings Unlimited  
Limited Subsurface Groundwater  
Sampling Event  
Location: 18420 68th Avenue  
Kent, Washington

Date: October 1, 2003  
Drawn / Created By: S.Spencer  
Checked By: B.Halbert

1990 Aerial Photograph  
Coatings Unlimited Project  
18420 68th Avenue S.  
Kent, Washington

Figure No.

FIGURE 05

# PHOTOGRAPHS





Photo 01  
Direct push drilling in Area 1 - Typical. View to the northeast.



Photo 02  
Split spoon soil sample collected from boring B3 following no groundwater recovery



Photo 03  
Groundwater collection from Area 1 - Typical. View to the northeast.



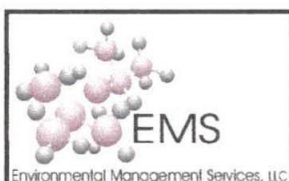
Photo 04  
Area 2 sampling location along the southern property boundary. View to the east.



Photo 05  
Direct push drilling in Area 2 - Using limited access rig - Typical. View to the northeast.



Photo 06  
Groundwater collection from Area 1 - Typical. View to the northeast.



Project Photographs  
Coatings Unlimited Project  
18420 68th Avenue S.  
Kent, Washington

Project No./Name: Coatings Unlimited  
GW Sampling Event  
Date: October 1, 2003  
Drawn / Created By: S. Spencer  
Checked By: S. Spencer

Figure No.

Photograph  
Sheet 01

## TABLES





**TABLE 1**  
**ANALYTICAL RESULTS**  
**Area 1 - Former Underground Storage Tank Area**  
**Coatings Unlimited Project**  
**18420 68th Avenue S.**  
**Kent, Washington**

Sample Number	Date Sampled	Location	Sample Depth (feet bgs)	Gasoline (NWTPH-G / 8021-b)	Benzene (8021-b)	Toluene (8021-b)	Ethylbenzene (8021-b)	Xylene (8021-b)	Diesel (NWTPH-Dx)	Oil (NWTPH-Dx)	Comments
B1-092203	9/22/2003	Boring Location B9	13-15' bgs	< 100 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<200 (ND)	<400 (ND)	Water sample, 40 mill VOA
B3-092203	9/22/2003	Boring Location B10	13-15' bgs	<10 (ND)	<.02 (ND)	<.05 (ND)	<.05 (ND)	<.05 (ND)	<20 (ND)	<40 (ND)	Soil Sample, 4 Ounce Lab
Laboratory Practical Quantitation Limit - Water			100 ug/l	1.0 ug/l	1.0 ug/l	1.0 ug/l	1.0 ug/l	200 ug/l	400 ug/l		
Laboratory Practical Quantitation Limit - Soil			10 mg/kg	.02 mg/kg	.05 mg/kg	.05 mg/kg	.05 mg/kg	20 mg/kg	40 mg/kg		
MTCA Method A Cleanup Levels For Groundwater			1000* ug/l	5.0 ug/l	1000 ug/l	700 ug/l	1000 ug/l	500 ug/l	500 ug/l		
MTCA Method A Cleanup Levels For Soil			100*	.03 mg/kg	7.0 mg/kg	6.0 mg/kg	9.0 mg/kg	2000 mg/kg	2000 mg/kg		

Water values are reported in micrograms/liter (ug/l) and soil values reported in milligrams/kilogram (mg/kg).

< ND = analyte not detected above the analytical method practical quantitation limit cited.

Gasoline, BTEX by Method 8021-b

Diesel Extended by Method NWTPH-Dx

\* Gasoline Method A Cleanup Levels for groundwater are 1000 ug/l unless detectable benzene is present then cleanup levels are reduced to 800 ug/l)

\* Gasoline Method A Cleanup Levels for soil are 100 mg/kg unless detectable benzene is present then cleanup levels are reduced to 30 mg/kg)

MTCA 2001 Method A Cleanup Levels for groundwater from the Model Toxics Control Act (MTCA) amendment Table 740-1 WAC 173-340 -900 Tables.



**TABLE 2**  
**ANALYTICAL RESULTS**  
 Area 2 - Southern Property Boundary Area  
 Coatings Unlimited  
 18420 68th Avenue S.  
 Kent, Washington

Sample Number	Date Sampled	Location	Sample Depth (feet bgs)	Vinyl Chloride (8021-b)	1,1-Dichloroethene (8021-b)	Trans-1,2-Dichloroethene (8021-b)	1,2-Dichloroethane (8021-b)	1,1,1-Trichloroethane (8021-b)	Trichloroethane (8021-b)	Tetrachloroethene (8021-b)	Comments
B6-092203	9/22/2003	Boring Location B6	13-16' bgs	15.0	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	Water sample, 40 mill VOA
B7-092203	9/22/2003	Boring Location B7	13-16' bgs	<0.2 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	Water sample, 40 mill VOA
B8-092203	9/22/2003	Boring Location B8	17-20' bgs	<0.2 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	Water sample, 40 mill VOA
B9-092903	9/29/2003	Boring Location B9	13-15' bgs	5.9	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	Water sample, 40 mill VOA
B10-092903	9/29/2003	Boring Location B10	13-15' bgs	0.25	<1.0 (ND)	<1.0 (ND)	7.8	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	Water sample, 40 mill VOA
B11-092903	9/29/2003	Boring Location B11	13-15' bgs	<0.2 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	Water sample, 40 mill VOA
B12-092903	9/29/2003	Boring Location B12	13-15' bgs	<0.2 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	Water sample, 40 mill VOA
B13-092903	9/29/2003	Boring Location B13	13-15' bgs	0.24	<1.0 (ND)	<1.0 (ND)	7.8	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	Water sample, 40 mill VOA
B14-092903	9/29/2003	Boring Location B14	13-15' bgs	<0.2 (ND)	<1.0 (ND)	<1.0 (ND)	3.0	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	Water sample, 40 mill VOA
B15-092903	9/29/2003	Boring Location B15	13-15' bgs	<0.2 (ND)	<1.0 (ND)	<1.0 (ND)	1.8	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	Water sample, 40 mill VOA
B16-092903	9/29/2003	Boring Location B16	13-15' bgs	<0.2 (ND)	<1.0 (ND)	<1.0 (ND)	2.3	<1.0 (ND)	<1.0 (ND)	<1.0 (ND)	Water sample, 40 mill VOA
Laboratory Detection Limit				0.2 ug/l	1.0 ug/l	1.0 ug/l	1.0 ug/l	1.0 ug/l	1.0 ug/l	1.0 ug/l	
MTCA Method A Cleanup Levels For Groundwater				0.2 ug/l	NA	NA	5.0 ug/l	200 ug/l	5.0 ug/l	5.0 ug/l	

**BOLD/RED** = analyte above MTCA 2001 Method A Cleanup levels.

Values are reported in micrograms/liter (ug/l).

< ND = analyte not detected above the analytical method detection limit cited.

Chlorinated Solvents by Method 8021-b

MTCA 2001 Method A Cleanup Levels for groundwater from the Model Toxics Control Act (MTCA) amendment Table 740-1 WAC 173-340 -900 Tables.

## **ATTACHMENT A**



# Libby Environmental, LLC

4139 Libby Road N.E., Olympia, WA 98506-2518

October 6, 2003

Steve Spencer  
EMS  
652 8<sup>th</sup> Ave  
Fox Island, WA 98333

Dear Mr. Spencer:

Please find enclosed the analytical data report for the Coatings Unlimited Project located in Kent, Washington. Water samples were analyzed for Volatile Organic Compounds by EPA Method 8021b on September 29, 2003.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed. All soil samples are reported on a dry weight basis.

Libby Environmental, LLC values the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt  
President  
Libby Environmental, LLC.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@aol.com

## LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

### COATINGS UNLIMITED PROJECT

Kent, Washington

Environmental Management Services

#### Analyses of Gasoline (NWTPH-Gx) & BTEX (EPA Method 8021B) in Water

Sample Number	Date Analyzed	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	Gasoline (ug/l)	Surrogate Recovery (%)
Method Blank	9/24/03	nd	nd	nd	nd	nd	110
LCS	9/24/03	89%	97%				108
B1	9/24/03	nd	nd	nd	nd	nd	95
B1 Dup	9/24/03	nd	nd	nd	nd	nd	106
B1 Matrix Spike	9/24/03	93%	99%				107
Practical Quantitation Limit		1	1	1	1	100	

"nd" Indicates not detected at the listed detection limits.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Trifluorotoluene): 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

# LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

## COATINGS UNLIMITED PROJECT

Kent, Washington

Environmental Management Services

### Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Water

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (ug/l)	Mineral Oil (ug/l)	Oil (ug/l)
Method Blank	9/24/2003	127	nd	nd	nd
B1	9/24/2003	99	nd	nd	nd
Practical Quantitation Limit			200	400	400

"nd" Indicates not detected at the listed detection limits.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

## LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

COATINGS UNLIMITED PROJECT  
Kent, Washington  
Environmental Management Services

### Analyses of Gasoline (NWTPH-Gx) & BTEX (EPA Method 8021B) in Soil

Sample Number	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline (mg/kg)	Surrogate Recovery (%)
Method Blank	9/24/03	nd	nd	nd	nd	nd	110
LCS	9/24/03	89%	97%				108
B3	9/24/03	nd	nd	nd	nd	nd	89
B3 Matrix Spike	9/24/03	88%	92%				100
Practical Quantitation Limit		0.02	0.05	0.05	0.05	10	

"nd" Indicates not detected at the listed detection limits.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Trifluorotoluene): 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt



# LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

## COATINGS UNLIMITED PROJECT

Kent, Washington

Environmental Management Services

### Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Mineral Oil (mg/kg)	Oil (mg/kg)
Method Blank	9/24/03	105	nd	nd	nd
B3	9/24/03	93	nd	nd	nd
Practical Quantitation Limit			20	40	40

"nd" Indicates not detected at the listed detection limits.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

# LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

## COATINGS UNLIMITED PROJECT

Kent, Washington

Environmental Management Services

### Specific Halogenated and Aromatic Hydrocarbons (EPA 8021B) in Water

Sample Description		Method Blank	B-6	B-7	B-8
Date Sampled		9/22/03	9/22/03	9/22/03	9/22/03
Date Analyzed		9/24/03	9/24/03	9/24/03	9/24/03
	PQL (ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Chloromethane	1.0	nd	nd	nd	nd
Vinyl chloride *	0.2	nd	nd	nd	15
Bromomethane	1.0	nd	nd	nd	nd
Chloroethane	1.0	nd	nd	nd	nd
Benzene	1.0	nd	nd	nd	nd
Toluene	1.0	nd	nd	nd	nd
Ethylbenzene	1.0	nd	nd	nd	nd
Total Xylenes	1.0	nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	nd	nd	nd
Methylene chloride	1.0	nd	nd	nd	nd
<i>trans</i> -1,2-Dichloroethene	1.0	nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd	nd	nd	nd
<i>cis</i> -1,2-Dichloroethene	1.0	nd	nd	nd	nd
Chloroform	1.0	nd	nd	nd	nd
1,1,1-Trichloroethane (TCA)	1.0	nd	nd	nd	nd
Carbon tetrachloride	1.0	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd	nd	nd	nd
Trichloroethene (TCE)	1.0	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd	nd	nd	nd
Bromodichloromethane	1.0	nd	nd	nd	nd
<i>cis</i> -1,3-Dichloropropane	1.0	nd	nd	nd	nd
<i>Trans</i> -1,3-Dichloropropene	1.0	nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd	nd	nd	nd
Tetrachloroethene (PCE)	1.0	nd	nd	nd	nd

# LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

## COATINGS UNLIMITED PROJECT

Kent, Washington

Environmental Management Services

### Specific Halogenated and Aromatic Hydrocarbons (EPA 8021B) in Water

Sample Description		Method Blank	B-6	B-7	B-8
Date Sampled		9/22/03	9/22/03	9/22/03	9/22/03
Date Analyzed		9/24/03	9/24/03	9/24/03	9/24/03
	PQL (ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Dibromochloromethane	1.0	nd	nd	nd	nd
1,2-Dibromoethane (EDB) *	1.0	nd	nd	nd	nd
Chlorobenzene	1.0	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd	nd	nd	nd
Bromoform	1.0	nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd	nd	nd	nd
Surrogate Recovery (%)		107	101	90	85

"nd" Indicates not detected at listed detection limit.

"int" Indicates that interference prevents determination.

\* INSTRUMENT DETECTION LIMIT

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Trifluorotoluene): 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

# LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

## COATINGS UNLIMITED PROJECT

Kent, Washington

Environmental Management Services

### QA/QC Data - EPA 8021B Analyses

Sample Identification: B6			
Matrix Spike			
	Spiked Conc. (ug/l)	Measured Conc. (ug/l)	Spike Recovery (%)
Benzene	80	66	83
Toluene	80	93	116
Trichloroethene (TCE)	80	80	100
Surrogate Spike			76

Laboratory Control Sample			
	Spiked Conc. (ug/l)	Measured Conc. (ug/l)	Spike Recovery (%)
Benzene	80	87	109
Toluene	80	95	119
Trichloroethene (TCE)	80	86	108
Surrogate Spike			106

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%  
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

# LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

COATINGS UNLIMITED PROJECT  
Kent, Washington  
Environmental Management Services

## Specific Halogenated and Aromatic Hydrocarbons (EPA 8021B) in Water

Sample Description	Method	B-9	B-10	B-10	B-11	B-12	B-13
	Blank	9/29/03	9/29/03	9/29/03 Dup	9/29/03	9/29/03	9/29/03
Date Sampled	9/29/03	9/29/03	9/29/03	9/29/03	9/29/03	9/29/03	9/29/03
Date Analyzed	9/29/03	9/29/03	9/29/03	9/29/03	9/29/03	9/29/03	9/29/03
POL							
	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Chloromethane	1.0	nd	nd	nd	nd	nd	nd
Vinyl chloride *	0.2	nd	5.9	0.25	0.23	nd	nd
Bromomethane	1.0	nd	nd	nd	nd	nd	nd
Chloroethane	1.0	nd	nd	nd	nd	nd	nd
Benzene	1.0	nd	nd	nd	nd	nd	nd
Toluene	1.0	nd	nd	nd	nd	nd	nd
Ethylbenzene	1.0	nd	nd	nd	nd	nd	nd
Total Xylenes	1.0	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd	nd	nd	nd	nd	nd
Methylene chloride	1.0	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethane	1.0	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethane	1.0	nd	4.2	7.8	6.8	nd	nd
Chloroform	1.0	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane (TCA)	1.0	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	1.0	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	1.0	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd	nd	nd	nd	nd	nd
Bromodichloromethane	1.0	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd	nd	nd	nd	nd	nd
Tetrachloroethane (PCE)	1.0	nd	nd	nd	nd	nd	nd
Dibromochloromethane	1.0	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB) *	1.0	nd	nd	nd	nd	nd	nd
Chlorobenzene	1.0	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd	nd	nd	nd	nd	nd
Bromoform	1.0	nd	nd	nd	nd	nd	nd
Surrogate Recovery (%)	135	85	105	114	90	82	122

"nd" Indicates not detected at listed detection limit.

"int" Indicates that interference prevents determination.

\* INSTRUMENT DETECTION LIMIT

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Trifluorobenzene): 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

# LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

## COATINGS UNLIMITED PROJECT

Kent, Washington

Environmental Management Services

### Specific Halogenated and Aromatic Hydrocarbons (EPA 8021B) in Water

Sample Description		B-14 92903	B-15 92903	B-16 92903	Sump
Date Sampled		9/29/03	9/29/03	9/29/03	9/29/03
Date Analyzed		9/29/03	9/29/03	9/29/03	9/29/03
	PQL (ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Chloromethane	1.0	nd	nd	nd	nd
Vinyl chloride *	0.2	nd	nd	nd	nd
Bromomethane	1.0	nd	nd	nd	nd
Chloroethane	1.0	nd	nd	nd	nd
Benzene	1.0	nd	nd	nd	nd
Toluene	1.0	nd	nd	nd	nd
Ethylbenzene	1.0	nd	nd	nd	nd
Total Xylenes	1.0	nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	nd	nd	nd
Methylene chloride	1.0	nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	3	18	1	nd
Chloroform	1.0	nd	nd	nd	nd
1,1,1-Trichloroethane (TCA)	1.0	nd	nd	nd	nd
Carbon tetrachloride	1.0	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd	nd	nd	nd
Trichloroethene (TCE)	1.0	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd	nd	nd	nd
Bromodichloromethane	1.0	nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd	nd	nd	nd
Trans-1,3-Dichloropropene	1.0	nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd	nd	nd	nd
Tetrachloroethene (PCE)	1.0	nd	nd	nd	nd
Dibromochloromethane	1.0	nd	nd	nd	nd
1,2-Dibromoethane (EDB) *	1.0	nd	nd	nd	nd
Chlorobenzene	1.0	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd	nd	nd	nd
Bromoform	1.0	nd	nd	nd	nd
Surrogate Recovery (%)		112	120	99	88

"nd" Indicates not detected at listed detection limit.

"int" Indicates that interference prevents determination.

#### \* INSTRUMENT DETECTION LIMIT

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Trifluorotoluene): 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

# LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

COATINGS UNLIMITED PROJECT  
Kent, Washington  
Environmental Management Services

## QA/QC Data - EPA 8021B Analyses

Sample Identification: B11			
Matrix Spike			

	Spiked Conc. (ug/l)	Measured Conc. (ug/l)	Spike Recovery (%)
Benzene	50	44	88
Toluene	50	33	66
Trichloroethene (TCE)	50	43	86
Surrogate Spike			82

Laboratory Control Sample			
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	Spiked Conc. (ug/l)	Measured Conc. (ug/l)	Spike Recovery (%)
Benzene	50	56	112
Toluene	50	48	96
Trichloroethene (TCE)	50	42	84
Surrogate Spike			126

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%  
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt




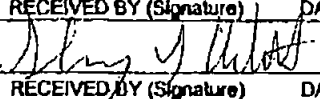
# BBY ENVIRONMENTAL, LLC

360-352-2110

# CHAIN-OF-CUSTODY RECORD

CLIENT: <u>BBY Environmental Management Services</u>	DATE: <u>9-22-03</u> PAGE <u>1</u> OF <u>1</u>
ADDRESS: <u>6528th Ave Fox Island, WA 98333</u>	PROJECT NAME: <u>Coal and</u>
PHONE: <u>253-921-7059</u> FAX: <u>253-8549-2707</u>	LOCATION: <u>Kent, Washington</u>
CLIENT PROJECT #: _____ PROJECT MANAGER: <u>S Spencer</u>	COLLECTOR: <u>S Spencer</u> DATE OF COLLECTION: <u>9-22-03</u>

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES															NOTES	Total Number of Containers	Laboratory Note Number					
					VOA 8021B	VOA 8021B BTEX ONLY	VOA 8260	SEMI VOL 8270	TPH - HCD	NWTPH-5X	NWTPH-DX	NWTPH-DX Ext.	PAH 8100	PAH 8270	PCBs 8082	Pesticides 8081	EPH	VPH	pH				Turbidity	Oil & Grease	Zinc	Metals	
1.	B1		W	40.0 UOA	X				X	X																2	
2.	B3		Soil	40.0 jar	X				X	X																1	
3.	B6		W	40.0 UOA	X	X																				2	
4.	B7		W	"	X	X																				1	
5.	B8		W	"	X	X																				2	
6.																											
7.																											
8.																											
9.																											
10.																											
11.																											
12.																											
13.																											
14.																											
15.																											
16.																											
17.																											
18.																											

RELINQUISHED BY (Signature) 	DATE/TIME <u>9-25-03</u>	RECEIVED BY (Signature) 	DATE/TIME _____	<b>SAMPLE RECEIPT</b> TOTAL NUMBER OF CONTAINERS _____ CHAIN OF CUSTODY SEALS Y/N/A _____ SEALS INTACT? Y/N/A _____ RECEIVED GOOD COND./COLD _____ NOTES: _____		Special Instructions:  Turn Around Time: 24 HR 48 HR 5 DAY
RELINQUISHED BY (Signature) _____	DATE/TIME _____	RECEIVED BY (Signature) _____	DATE/TIME _____			

## BBY ENVIRONMENTAL, LLC

360-352-2110

## CHAIN-OF-CUSTODY RECORD

CLIENT: Environmental Management ServicesDATE: 9-29-03 PAGE 1 OF 1

ADDRESS: \_\_\_\_\_

PROJECT NAME: Coatings Unlimited

PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

LOCATION: Kent, WashingtonCLIENT PROJECT #: \_\_\_\_\_ PROJECT MANAGER: S. SpencerCOLLECTOR: S. Spencer & B. Halbot DATE OF COLLECTION: 9-29-03

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES																NOTES	Total Number of Containers	Laboratory Note Number			
					VOA 8021B	VOA 8021B BTEX ONLY	VOA 8260	SEMI VOL 8270	TPH - HC10	MMTPH-GY	HWTPH-DX	NWTPH-D/E4	PAH 8100	PAH 8270	PCBs 5082	Pesticides 8081	EPH	VPH	pH	Turbidity				Oil & Grease	Zinc	Metals
1. 19-92903			W	40 ml VOA	X																				2	
2. B10-92903			W	40 ml VOA	X																				2	
3. B11-92903			W	40 ml VOA	X																				1	
4. B12-92903			W	40 ml VOA	X																				1	
5. B13-92903			W	40 ml VOA	X																				1	
6. B15-92903			W	40 ml VOA	X																				1	
7. B14-92903			W	40 ml VOA	X																				1	
8. Sump			W	40 ml VOA	X																				1	
9. B16-92903			W	40 ml VOA	X																				1	
10.																										
11.																										
12.																										
13.																										
14.																										
15.																										
16.																										
17.																										
18.																										

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
<u>W. Halbot</u>	<u>9-29-03/14:30</u>	<u>W. Halbot</u>	<u>9-29-03/14:51</u>

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

## SAMPLE RECEIPT

TOTAL NUMBER OF CONTAINERS 11CHAIN OF CUSTODY SEALS Y/N/ASEALS INTACT? Y/N/ARECEIVED GOOD COND./COLD Y

NOTES:

Special Instructions:

Turn Around Time: 24 HR 48 HR 5 DAY

## **ATTACHMENT B**

Borehole/Well		Site and Job Number		Date	Time		
B1-92203		Coatings JALMIL 106		9-22-03	0900		
Depth ft BGS	ASTM Soil Class	Water Table	Well Design	Description	Blows/ft	Sample	Additional notes (contamination)
0'				↑ (ENTER) (LAND AREA - 20000) (711)			
1'							
2'							
3'							
4'							
5'							
6'							
7'							
8'							
9'							
10'							
11'							
12'							
13'							
14'							
15'							
16'							
17'							
18'							
19'							
20'							
21'							
22'							
23'							
24'							
25'							
26'							
27'							
28'							
29'							
30'							
31'							
32'							
33'							
34'							
35'							
36'							
37'							
38'							
39'							
40'							
41'							
42'							
43'							
44'							
45'							
46'							
47'							
48'							
49'							
50'							

# Borehole/Well Log

Geologist / Scientist: C. E. S. M. C. C.  
 Driller: J. E. S. M. C. C. - J. E. S. M. C. C. C. Y. R. I. E. L.  
 Drill method: PROBE  
 Sample method: PROBABILISTIC ANALYSIS



**EMS, LLC**  
Environmental Management Services, LLC

Geologist / Scientist: S. SPENCER  
Driller: Nolt - Mike  
Drill method: Probe  
Sample method: Penetration Pump

<b>Borehole/Well</b> B3		<b>Site and Job Number</b> Coatings Unlimited		<b>Date</b> 9-22-03	<b>Time</b> 11:40
<b>Depth ft BGS</b>	<b>ASTM Soil Class</b>	<b>Water Table</b>	<b>Well Design</b>	<b>Description</b>	<b>Blows/ft</b>  <b>Sample</b>  <b>Additional notes (contamination)</b>
0' 1' 2' 3' 4' 5' 6' 7' 8' 9' 10' 11' 12' 13' 14' 15' 16' 17' 18' 19' 20'				1 GROUND, SAND  2. CRISTAL SILT, BROWN  X SAND, MED GRAIN - 11' to 12' 13' - Sample Collection Point Silt, SAND  NO WATER BEING SOIL SAMPLE collected at 13-15' BROWN TO GRAY, FINE TO MED Silty Sand, moist to med.	

# Borehole/Well Log



**Geologist / Scientist:** [Signature]  
**Driller:**  
**Drill method:**  
**Sample method:**

<b>Borehole/Well</b> B4		<b>Site and Job Number</b> Coatings Unlimited		<b>Date</b> 9-22-03	<b>Time</b> 12:16
Depth ft BGS	ASTM Soil Class	Water Table	Well Design	Description	Blows/6" Sample Additional notes (contamination)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50				PUSH TO 7.0' - Refuse - concrete in soil ✓	

Borehole/Well Log



Geologist / Scientist: S. SPENCER  
 Driller: Holt  
 Drill method: Probe  
 Sample method: Peristaltic Pump





**EMS, LLC**  
Environmental Management Services, LLC

Geologist / Scientist: J. Spencer  
Driller: Holt - Mice  
Drill method: Auger  
Sample method: Overstroke Pump

<b>Borehole/Well</b> B6-a2203		<b>Site and Job Number</b>		<b>Date</b> 0-22-03	<b>Time</b>
<b>Depth ft BGS</b>	<b>ASTM Soil Class</b>	<b>Water Table</b>	<b>Well Design</b>	<b>Description</b>	<b>Blows/ft</b> <b>Sample</b> <b>Additional notes (contamination)</b>
0' 1' 2' 3' 4' 5' 6' 7' 8' 9' 10' 11' 12' 13' 14' 15' 16' 17' 18' 19' 20'				<p>water sample collected from sand 2' below - 1' DCA 2.0' 1530</p> <p>location of sample is at top of formation</p>	<p>120 13-15' 0.5-1.0'</p>



# **Borehole/Well Log**

**Geologist / Scientist:**

**Driller:**

**Drill method:**

**Sample method:**

Sherry Chittick + Steve Spencer

Probe

pneumatic Pump

Borehole/Well		Site and Job Number		Date	Time		
67-02003							
Depth ft BGS	ASTM Soil Class	Water Table	Well Design	Description	Blows/ft	Sample	Additional notes (contamination)
0   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   22   23   24   25   26   27   28   29   30   31   32   33   34   35   36   37   38   39   40   41   42   43   44   45   46   47   48   49   50   51   52   53   54   55   56   57   58   59   60   61   62   63   64   65   66   67   68   69   70   71   72   73   74   75   76   77   78   79   80   81   82   83   84   85   86   87   88   89   90   91   92   93   94   95   96   97   98   99   100 			<p>0-10' silty sand</p> <p>10-20' silty sand</p> <p>20-30' silty sand</p> <p>30-40' silty sand</p> <p>40-50' silty sand</p> <p>50-60' silty sand</p> <p>60-70' silty sand</p> <p>70-80' silty sand</p> <p>80-90' silty sand</p> <p>90-100' silty sand</p>			<p>0-10' silty sand</p> <p>10-20' silty sand</p> <p>20-30' silty sand</p> <p>30-40' silty sand</p> <p>40-50' silty sand</p> <p>50-60' silty sand</p> <p>60-70' silty sand</p> <p>70-80' silty sand</p> <p>80-90' silty sand</p> <p>90-100' silty sand</p>	

# Borehole/Well Log



Geologist / Scientist: Sherry G. Gentry  
Driller: [Signature]  
Drill method: [Signature]  
Sample method: [Signature]



 **EMS, LLC**  
Environmental Management Services, LLC

Geologist / Scientist: *APOLCEK*  
 Driller: *ECN*  
 Drill method:  
 Sample method:

Borehole/Well		Site and Job Number		Date	Time		
B10		Coatings Unlimited		9-29-03	945		
Depth ft BGS	ASTM Soil Class	Water Table	Well Design	Description	Blows/ft	Sample	Additional notes (contamination)
0							
5				3/4" 10' SCREEN			
10		▽					
15				Water sample collected at 10' and slow recharge sample was taken with sampler at 10'.		B10	

# Borehole/Well Log



Geologist / Scientist: J. Spencer  
Driller: ESAJ  
Drill method: Probe  
Sample method: Permeability

Borehole/Well				Site and Job Number		Date	Time
Depth ft BGS	ASTM Soil Class	Water Table	Well Design	Description	Blows/6"	Sample	Additional notes (contamination)
0							
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
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47							
48							
49							
50							

SCREEN - 3/4" 10'

Water Sample Collected at H.O  
Feet 26.5 - Very Low Turbidity

Borehole/Well Log



Geologist / Scientist: J. SPENCER  
 Driller: ECR  
 Drill method: Probe  
 Sample method: Freshwater





Borehole/Well Log

 **EMS, LLC**  
Environmental Management Services, LLC

Borehole/Well Log

**EMS, LLC**  
Environmental Management Services, LLC

Borehole/Well		Site and Job Number		Date	Time		
C15		COOPINGE 1000 N. 7th		7-22	2:30		
Depth ft BGS	ASTM Soil Class	Water Table	Well Design	Description	Blows/6"	Sample	Additional notes (contamination)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100			SCREEN - 3/4" 10'				
				WATER SAMPLE 10' 10" 10'			

# Borehole/Well Log

Geologist / Scientist: B. AUBELT

Driller: ESN

Drill method: PROBE

Sample method: PARASOLIC

Borehole/Well		Site and Job Number		Date	Time		
E16		CONTINGUS DRILLING LTD		9-29	3:30		
Depth # BGS	ASTM Soil Class	Water Table	Well Design	Description	Blows/ft	Sample	Additional notes (contamination)
0   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   22   23   24   25   26   27   28   29   30   31   32   33   34   35   36   37   38   39   40   41   42   43   44   45   46   47   48   49   50 			screen 3/4" - 10'  SAMPLE COLLECTED AT 14.0' BGS. VERY SLOW RECHARGE		B16		

# Borehole/Well Log

Geologist / Scientist: B. HAUBERT

Driller: ESN

Drill method: PROBE

Sample method: PHOTOGRAPHIC