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July 7, 2006

Mr. Darrell Vange Dearborn Street Developers, LLC 2620 Second Avenue Seattle, Washington 98121

Re: DRAFT Limited Phase II Subsurface Assessment Herzog Glass Property 1300 South Dearborn Street Seattle, Washington 17250-02

Dear Mr. Vange:

This letter report presents the results of our Limited Phase II Subsurface Assessment at the Herzog Glass property located in Seattle, Washington (Figure 1). The project scope of work was completed in general accordance with our scope of services dated September 8, 2005. Our Limited Phase II Subsurface Assessment provides information on the current conditions of soil and groundwater at the subject property to further assess potential impacts related to the historical use of the property as a truck body manufacturing and repair facility and remedial actions conducted at the subject property associated with the removal of four underground storage tanks (USTs).

Our report begins with a Summary of Findings and Recommendations, which is followed by our:

- Scope of Work;
- Subject Property Description;
- Geology and Hydrogeology;
- Limited Phase II Subsurface Assessment; and
- Limitations.

Analytical results for soil and groundwater samples are summarized in Tables 1 and 2, respectively. Figure 1 is a Vicinity Map showing the location of the subject property. Figure 2 shows the location of the subject property relative to other Goodwill sites in the vicinity. A Site and Exploration Plan showing subject property features and sampling locations is presented on Figure 3. Appendix A presents the field exploration procedures and copies of the exploration logs. Appendix B presents the chemical data quality review and the Advanced Analytical laboratory certificates of analysis.



#### SUMMARY OF FINDINGS AND RECOMMENDATIONS

Twelve strataprobes were advanced within the Herzog Glass property boundary to depths of approximately 6 to 16 feet below the ground surface during our Limited Phase II Subsurface Assessment. In addition, seven strataprobes were advanced within the east adjacent site boundary (Goodwill storage building formerly lease by Herzog Glass) to depths of approximately 14 to 16 feet below ground surface. Groundwater was encountered between 6 and 12 feet below grade in seventeen of the nineteen strataprobes advanced. Grab groundwater samples were collected from four of the strataprobe explorations advanced throughout the subject property and adjacent area.

Field screening of the soil samples in the strataprobe explorations during the Limited Phase II Subsurface Assessment indicated minor concentrations of volatile organic compounds (VOCs) near the east-central border of the property. However, the chemical analyses results did not indicate any VOC or petroleum constituents were present in soils. Analytical results of the soil samples analyzed indicate that lead, chromium, and arsenic were the only constituents detected in the samples; however, their concentrations were below applicable MTCA cleanup levels. No detectable concentrations of petroleum hydrocarbons or VOCs were detected in the soil samples. In addition slight odors were noted in a couple of soil samples from SP-12. However, no detectable concentrations of petroleum or VOCs were detected in these soils samples.

Detections in two of the four grab groundwater samples collected and analyzed were for 1,1dichloroethene (1,1-DCE), 1,1-dichloroethane (1,1-DCA), 1,1,1-trichloroethane (1,1-TCA), carbon tetrachloride, and toluene. These VOCs are chlorinated solvents typically used in dry cleaning operations and in auto maintenance and repair. Except for carbon tetrachloride, the chlorinated solvent concentrations detected were below applicable MTCA cleanup levels. Since the direction of groundwater flow has been documented as either to the southeast or southwest, the chlorinated solvents present in groundwater may be a result from the historical truck manufacturing operations or from migration from sources upgradient of the subject property. No detectable concentrations of petroleum hydrocarbons, metals, or other VOCs were detected in the grab groundwater samples analyzed.

Based on our observations and the chemical data, no significant widespread petroleum-impacted soils appear to be present under the Herzog Glass buildings, in the north storage yard, or in the Goodwill storage building. Low concentrations of metals, including chromium were detected in some of the soil samples analyzed for both parcels. The higher chromium concentrations (greater than 100 mg/kg) in several of the current soil samples from inside the Herzog Glass property and the adjacent Goodwill storage building were similar to the total chromium results from a couple of previous soil samples from the adjacent east parking lot collected in 2000 on the Goodwill site.



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Although analytical results for petroleum hydrocarbons indicated no detectable concentrations in the samples analyzed, the field observations and screening results did indicate limited areas of potential petroleum impacts.

#### **Recommendations**

Since it is our understanding that future redevelopment efforts at the subject property and surrounding sites include the demolition of the current buildings and foundations and an excavation to accommodate a new building and underground parking areas, we recommend the following.

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#### Potential Metal Impacts

As part of the overall preparation of a Geanup Action blan (CAP) for the entire development as part of the prospective purchase page ement (PPA), we recommend including the eastern portion of the Herzog Glass property and adjacent Goodwill storage building in the grid sampling for chromium analysis and soil removal as appropriate.

#### **Potential Petroleum and VOC Impacts**

We recommend that a construction contingency plan be prepared and implemented during future excavation and construction activities. During building excavation activities, subsurface conditions of soil and/or groundwater below the buildings should be monitored for appropriate soil and groundwater management and disposal.

A construction contingency plan includes the procedures to be followed if suspect environmental conditions are encountered during excavation and construction work. The construction contingency plan will outline the steps to manage potential impacted soil and/or groundwater or discovered unknown USTs. These are commonly used in the industry where potential contaminants may be encountered and assist in expeditiously managing and handling encountered impacted soil and groundwater with no or minimal disruption to construction activities.

#### **SCOPE OF WORK**

Our Limited Phase II Subsurface Assessment included:

 Conducting twelve strataprobe explorations at select locations on the subject property and seven strataprobe explorations at select locations in the Goodwill Storage Building site;



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- Collecting soil samples from the twelve strataprobe explorations advanced on the subject property and the seven strataprobe explorations within the Goodwill storage building;
- Collecting grab groundwater samples from three of the twelve strataprobe explorations advanced on the subject property and one from the seven strataprobe explorations advanced within the Goodwill storage building;
- Chemically analyzing selected soil and the grab groundwater samples;
- Evaluating the chemical analytical results; and
- Preparing this letter report presenting the findings of our work.

As presented earlier, the purpose of the assessment was to obtain enough information to further assess whether any potential impacts exist related to the historical use of the property as a truck body manufacturing and repair facility and from four USTs and petroleum-impacted soil removed from the property.

#### SUBJECT PROPERTY DESCRIPTION

The subject property is located on 1300 South Dearborn Street in Seattle, Washington (Figures 2 and 3). The property consists of one parcel totaling approximately 25,618 square feet occupied by two buildings (1300 and 1308 South Dearborn Street) used for glass manufacture and sales. Herzog Glass leased a third building for storage purposes from the late 1970s through the early 1980s. This building (1312 South Dearborn Street) is currently owned by Goodwill Industries and is located immediately adjacent to the east of Herzog's buildings. The remainder of the subject property is covered with asphalt or gravel and is used for parking or storage. The subject property is relatively flat with a slight downward gradient to the southwest.

#### **GEOLOGY AND HYDROGEOLOGY**

The subject property is located at the base of a south-facing hill at the north end of the Rainier Valley. Beacon Hill is located a few hundred yards to the southwest. This hill was originally part of an unbroken ridge extending from First Hill to the north, to the City limits to the south. Between 1909 and 1912, the ridge was hydraulically cut 90 feet at Dearborn Street, connecting the Rainier Valley to the Elliott Bay tidelands. The subject property is relatively flat with an elevation of



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approximately 90 feet, and is covered with either paved parking areas or buildings. To the west of the subject property, across 13th Avenue, the ground surface rises steeply to the northwest.

Based on previous field explorations conducted on surrounding sites, four general soil units were identified in the vicinity of the subject property. Surface soils are characterized by silty, gravelly sandy fill, and a sandy, silty clay (with occasional peat) to depths of approximately 20 feet. Brick and ash were also encountered in fill areas toward Rainier Avenue South. These surface soils were underlain by a laterally continuous silty sand and gravel soil unit and were occasionally locally interbedded with sandy clay. This unit was generally encountered to between 20 to 50 feet below ground surface and was underlain by a clayey silt and clayey sand unit often encountered between 50 to 60 feet below ground surface. Generally, this zone thickens toward Dearborn Street and locally grades into fractured clayey silt to depths up to 102 feet below the ground surface. The deepest soil unit encountered was a dense to very dense gravelly sand, with zones of till-like gravelly, silty sand. This unit was generally first encountered at depths from about 50 to 60 feet below the ground surface in areas near South Dearborn Street. Till-like gravelly sand and silt lie closer to the surface beneath uphill areas in the vicinity closer to South Weller Street.

Based on data obtained during previous investigations in the vicinity of the subject property, typical depth to groundwater ranges from approximately 6 to 13 feet below ground surface, depending on location and ground surface elevation. Results from these investigations indicate that local shallow groundwater flow direction is to the southeast. However, regional groundwater flow is likely to the southwest and west, following Dearborn, toward Elliott Bay. Therefore, groundwater flow directions and gradients at the subject property and vicinity may vary based on location, season, and proximity to surface utilities.

#### LIMITED PHASE II SUBSURFACE ASSESSMENT

#### Soil Sampling and Analysis

On May 24 and 25, 2006, Hart Crowser advanced twelve strataprobes (SP-1, SP-2, SP-4, SP-5B, and SP-6 through SP-13) at locations throughout the subject property as shown on Figure 3. Strataprobes SP-1, SP-2, SP-4, SP-5B, SP-12, and SP-13 were advanced within the Herzog Glass main building. Strataprobes SP-7, SP-8, SP-9, and SP-11 were advanced in the parking area north of the main building while SP-10 was advanced within the Steel Fabrication shop.

In addition to the strataprobes advanced within the subject property, seven strataprobes (SP-14, SP-15, SP-16B, and SP-17 through SP-20) were advanced within the Goodwill storage building historically leased by Herzog. Stratraprobes SP-16B, SP-17, SP-18, and SP-20 were advanced within

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the building footprint while strataprobes SP-14, SP-15, and SP-19 were advanced in the parking area north of the building.

ESN NW completed the explorations by Strataprobe equipment to depths of 6 to 16 feet below the grade. Groundwater was encountered in seventeen of the nineteen strataprobes advanced between 6 and 12 feet below grade within the subject property, and between 9 and 11 feet below grade within the Goodwill storage building.

Soil samples were collected at 4-foot-depth intervals in the probes. A photoionization detector (PID) was used to screen the soil samples for volatile organic vapors (VOCs) indicative of petroleum hydrocarbons and/or VOCs. Low-level PID measurements were encountered in soil samples from 6 to 10 feet below grade in strataprobe SP-12 and from 0 to 8 feet below grade in strataprobe SP-15 ranging from 1.1 to 9.6. The highest PID reading (9.6) was encountered in a deep soil sample (8 to 10 feet below grade) collected from strataprobe SP-12. Slight petroleum-like odors were noticed in the soil samples collected from SP-12. A slight sulfur-like odor was noticed in the soil samples collected in SP-19 at approximately 6 to 8 feet below grade. The origin of this odor is likely decaying organics observed in the soil.

Soil samples were temporarily stored in Hart Crowser's locked refrigerators and were submitted to the Advanced Analytical chemical laboratory in Redmond, Washington, for chemical analysis. Thirty soil samples (twenty from the subject property and ten from the Goodwill Storage Building site) were submitted for analysis of one or more of the following:

- Gasoline-range total petroleum hydrocarbons (TPH) and diesel- and heavy oil-range TPH (Ecology Method NWTPH-Gx and NWTPH-Dx);
- Benzene, toluene, ethylbenzene, and xylenes (BTEX compounds by EPA Method 8021);
- Volatile organic compounds (VOCs by EPA Method 8260); and
- Total Metals (lead, cadmium, chromium, arsenic, mercury, copper, nickel, and zinc by EPA Method 7000 Series).

#### **Herzog Glass Analytical Results**

The analytical results for soil and groundwater samples are summarized in Tables 1 and 2, respectively. Laboratory analytical reports are presented in Appendix B.

#### Metals

Thirteen soil samples collected from the subject property were submitted for analysis of metals. Analytical results of the soil samples analyzed during the Limited Phase II Subsurface Assessment



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indicate that lead (1.6 to 9.5 mg/kg), chromium (30 to 110 mg/kg), arsenic (2 to 12 mg/kg), copper (10 to 80 mg/kg), nickel (18 to 43 mg/kg), and zinc (0.6 to 5.1 mg/kg) were detected in these samples at concentrations less than applicable MTCA cleanup levels. Cadmium and mercury were not detected in the soil samples analyzed.

#### Diesel-, Heavy Oil-, and Gasoline-Range TPH; BTEX; PAHs; and VOCs

Diesel-, heavy oil-, and gasoline-range TPH, as well as BTEX compounds, and VOCs were not detected in any of the subsurface soil samples from the subject property analyzed for these constituents (Table 1).

#### **Goodwill Storage Building Analytical Results**

The analytical results for soil and groundwater samples are summarized in Tables 1 and 2, respectively. Laboratory analytical reports are presented in Appendix B.

#### Metals

Nine soil samples collected from the Goodwill Storage Building site were submitted for analysis of metals. Analytical results of the soil samples analyzed during the Limited Phase II Subsurface Assessment indicate that lead (1 to 8.6 mg/kg), chromium (8.1 to 170 mg/kg), arsenic (2 to 4.4 mg/kg), copper (4.1 to 51 mg/kg), nickel (4.6 to 66 mg/kg), and zinc (2.4 to 12 mg/kg) were detected in these samples at concentrations less than applicable MTCA cleanup levels. Cadmium and mercury were not detected in the soil samples analyzed.

#### Diesel-, Heavy Oil-, and Gasoline-Range TPH; BTEX; PAHs; and VOCs

Diesel-, heavy oil-, and gasoline-range TPH, as well as BTEX compounds, and VOCs were not detected in any of the subsurface soil samples from the Goodwill Storage Building site analyzed for these constituents (Table 1).

#### Grab Groundwater Sampling and Analysis

On May 24, 25, and 30, 2006, Hart Crowser collected grab groundwater samples from three of the strataprobe explorations advanced at the subject property (SP-5B, SP-8, and SP-10) and from one of the strataprobe explorations advanced the adjacent Goodwill Storage Building site (SP-15).



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The grab groundwater samples were temporarily stored in Hart Crowser's locked refrigerators and were submitted to the Advanced Analytical chemical laboratory in Redmond, Washington, for analysis. The groundwater samples were submitted for analysis of the following:

- Gasoline-range TPH and diesel- and heavy oil-range TPH (Ecology Method NWTPH-Gx and NWTPH-Dx);
- Total Metals (lead, cadmium, chromium, arsenic, mercury, copper, nickel, and zinc by EPA Method 7000 Series); and
- VOCs (EPA Method 8260).

#### **Herzog Glass Analytical Results**

Analytical results of the grab groundwater samples collected from the subject property indicated that four VOCs were the only constituents detected in SP-10 and SP-5B. These VOCs included 1,1-DCE, 1,1-DCA, 1,1-TCA, carbon tetrachloride, and toluene. Except for carbon tetrachloride, the chlorinated solvent concentrations detected were below applicable MTCA cleanup levels.

Gasoline-range, diesel-, and heavy oil-range TPH were not detected in the three groundwater samples analyzed from the subject property. Of the metals analyzed in these grab groundwater samples from the subject property only nickel (0.015 to 0.022 mg/L) and zinc (0.001 to 0.003) were detected. These concentrations are well below the MTCA screening levels.

#### **Goodwill Storage Building Analytical Results**

Gasoline-range, diesel-, and heavy oil-range TPH, and VOCs were not detected in the groundwater sample analyzed from the Goodwill Storage Building site. In the grab groundwater samples from the Goodwill Storage Building site only nickel (0.053 mg/L) and zinc (0.002 mg/L) were detected of the metals analyzed. These concentrations are well below the MTCA screening levels.

#### LIMITATIONS

Work for this project was performed, and this letter report prepared, in accordance with generally accepted professional practices for the nature and conditions of the work completed in the same or similar localities, at the time the work was performed. It is intended for the exclusive use of Dearborn Street Developers, LLC, for specific application to the subject property. This report is not meant to represent a legal opinion. No other warranty, express or implied, is made.



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Our work did not include sampling or testing of drinking water for lead content, sampling for indoor air quality and mold, assessment of sewer systems, sampling for radon vapor, a "good-faith" survey of asbestos and lead, and other items not the standard of practice for our time, unless otherwise noted herein.

Any questions regarding our work and this letter report, the presentation of the information, and the interpretation of the data are welcome and should be referred to the undersigned.

Sincerely,

HART CROWSER, INC.



**SONIA FERNÁNDEZ** Project Environmental Scientist Sonia.fernandez@hartcrowser.com JULIE K.W. WUKELIC Senior Principal Engineer jkw@hartcrowser.com

Attachments: Table 1 - Analytical Results for Soil Samples Table 2 - Analytical Results for Grab Groundwater Samples Figure 1 - Vicinity Map Figure 2 - Map of Adjacent Sites Figure 3 - Site and Exploration Plan Appendix A - Field Exploration Methods and Analysis Appendix B - Chemical Data Quality Review and Certificates of Analysis Advanced Analytical Laboratory

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#### Table 1 - Analytical Results for Soil Samples

Sample ID Sampling Date Depth in Feet	MTCA Method A Cleanup Level	SP1-S2 5/25/2006 4 to 8	SP1-S3 5/25/2006 8 to 12	SP2-S3 5/24/2006 8 to 11	SP4-S4 5/24/2006 9 to 12	SP5B-S3 5/24/2006 8 to 11	SP6-S2 5/25/2006 4 to 8	SP7-S2 5/25/2006 4 to 6
NWTPH-Dx in mg/kg								
Kerosene/Jet fuel		20 U	20 U	20 U	20 U	20 U	20 U	20 U
Diesel/Fuel oil	2000	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Heavy oil	2000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
NWTPH-Gx in mg/kg								
Mineral spirits/Stoddard	100		5.0 UJ		5.0 UJ			5.0 UJ
Gasoline	100/30(d)		5.0 UJ		5.0 UJ			5.0 UJ
BTEX in µg/kg								
Benzene	30		20 UJ		20 UJ			20 UJ
Toluene	7000		50 UJ		50 UJ			50 UJ
Ethylbenzene	6000		50 UJ		50 UJ			50 UJ
Xylenes	9000		50 UJ		50 UJ			50 UJ
Metals in mg/kg								
Lead	250		4.0	6.9	9.5	4.2	7.1	
Chromium	19/2000(a)		40	47	42	86	68	
Cadmium	2		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Arsenic	20		6.1	2.3	4.1	2.4	2.0	
Mercury	2		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Copper	2960(c)		17	29	18	24	18	
Nickel	1600(c)		18	36	20	35	26	
Zinc	24,000(c)		1.5	3.8	12	2.6	1.2	

#### Table 1 - Analytical Results for Soil Samples

Sample ID Sampling Date Depth in Feet	MTCA Method A Cleanup Level	SP8-S2 5/25/2006 4 to 8	SP8-S4 5/25/2006 10 to 14	SP9-S2 5/25/2006 4 to 8	SP9-S3 5/25/2006 8 to 11	SP10-S4 5/25/2006 10 to 12	SP11-S2 5/25/2006 4 to 8	SP11-S3 5/25/2006 8 to 12
NWTPH-Dx in mg/kg								
Kerosene/Jet fuel		20 U	20 U	20 U	20 U	20 U	20 U	20 U
Diesel/Fuel oil	2000	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Heavy oil	2000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
NWTPH-Gx in mg/kg								
Mineral spirits/Stoddard	100	5.0 UJ	5.0 UJ			5.0 UJ		
Gasoline	100/30(d)	5.0 UJ	5.0 UJ			5.0 UJ		
BTEX in µg/kg								
Benzene	30		20 UJ					
Toluene	7000		50 UJ					
Ethylbenzene	6000		50 UJ					
Xylenes	9000		50 UJ					
Metals in mg/kg								
Lead	250	4.6	4.0	3.1	1.6	2.8		2.3
Chromium	19/2000(a)	110	64	44	30	39		43
Cadmium	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U
Arsenic	20	4.2	2.6	2.4	12	2.2		2.0 U
Mercury	2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U
Copper	2960(c)	31	26	10	80	16		13
Nickel	1600(c)	43	33	20	33	21		22
Zinc	24,000(c)	5.1	2.9	2.2	1.9	1.2		1.8

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#### Table 1 - Analytical Results for Soil Samples

Sample ID Sampling Date Depth in Feet	MTCA Method A Cleanup Level	SP12-S2 5/24/2006 2 to 4	SP12-S3 5/24/2006 4 to 6	SP12-S4 5/24/2006 6 to 8	SP12-S5 5/24/2006 8 to 10	SP13-S4 5/24/2006 6 to 8	SP13-S5 5/24/2006 8 to 10	SP14-S3 5/31/2006 8 to 11
NWTPH-Dx in mg/kg								
Kerosene/Jet fuel		20 U	20 U	20 U	20 U	20 U	20 U	20 U
Diesel/Fuel oil	2000	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Heavy oil	2000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
NWTPH-Gx in mg/kg								
Mineral spirits/Stoddard	100			5.0 UJ	5.0 UJ	5.0 UJ		
Gasoline	100/30(d)			5.0 UJ	5.0 UJ	5.0 UJ		
BTEX in µg/kg								
Benzene	30			20 UJ				
Toluene	7000			50 UJ				
Ethylbenzene	6000			50 UJ				
Xylenes	9000			50 UJ				
Metals in mg/kg								
Lead	250				3.1	4.9		1.0
Chromium	19/2000(a)				55	72		8.1
Cadmium	2				1.0 U	1.0 U		1.0 U
Arsenic	20				2.0 U	3.5		2.0 U
Mercury	2				0.5 U	0.5 U		0.5 U
Copper	2960(c)					30		
Nickel	1600(c)					35		
Zinc	24,000(c)					3.5		

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#### Table 1 - Analytical Results for Soil Samples

Sample ID Sampling Date Depth in Feet	MTCA Method A Cleanup Level	SP15-S3 5/30/2006 8 to 12	SP16B-S2 5/25/2006 4 to 7	SP16B-S4 5/25/2006 10 to 12	SP17-S3 5/26/2006 8 to 11	SP18-S2 5/26/2006 4 to 8	SP18-S4 5/26/2006 11 to 15	SP19-S3 5/30/2006 8 to 11
NWTPH-Dx in mg/kg								
Kerosene/Jet fuel		20 U	20 U	20 U	20 U	20 U	20 U	20 U
Diesel/Fuel oil	2000	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Heavy oil	2000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
NWTPH-Gx in mg/kg								
Mineral spirits/Stoddard	100	5.0 UJ					5.0 UJ	5.0 UJ
Gasoline	100/30(d)	5.0 UJ					5.0 UJ	5.0 UJ
BTEX in µg/kg								
Benzene	30	20 UJ						20 UJ
Toluene	7000	50 UJ						50 UJ
Ethylbenzene	6000	50 UJ						50 UJ
Xylenes	9000	50 UJ						50 UJ
Metals in mg/kg								
Lead	250		7.9	4.6	8.6	8.1	3.8	1.8
Chromium	19/2000(a)		77	69	140	170	49	11
Cadmium	2		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Arsenic	20		3.2	2.4	4.3	4.4	2.4	2.0 U
Mercury	2		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Copper	2960(c)		38	47	51	33	18	12
Nickel	1600(c)		36	31	66	43	30	6
Zinc	24,000(c)		4.5	2.4	3.9	4.4	0.5 U	12.0

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#### Table 1 - Analytical Results for Soil Samples

Sample ID	MTCA	SP20-S1	SP20-S3
Sampling Date	Method A	5/26/2006	5/26/2006
Depth in Feet	Cleanup Level	0.5 to 4	8 to 11
NWTPH-Dx in mg/kg			
Kerosene/Jet fuel	-	20 U	20 U
Diesel/Fuel oil	2000	20 U	20 U
Heavy oil	2000	50 U	50 U
NWTPH-Gx in mg/kg			
Mineral spirits/Stoddard	100		
Gasoline	100/30(d)		
BTEX in µg/kg			
Benzene	30		
Toluene	7000		
Ethylbenzene	6000		
Xylenes	9000		
Metals in mg/kg			
Lead	250	3.4	7.0
Chromium	19/2000(a)	43	66
Cadmium	2	1.0 U	1.0 U
Arsenic	20	2.0	2.3
Mercury	2	0.5 U	0.5 U
Copper	2960(c)	20	36
Nickel	1600(c)	30	37
Zinc	24,000(c)	0.5 U	3.9

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#### Table 1 - Analytical Results for Soil Samples

Sample ID	MTCA	SP5B-S3	SP8-S2	SP10-S4	SP12-S4	SP13-S4	SP16B-S4
Sampling Date	Method A	5/24/2006	5/25/2006	5/25/2006	5/24/2006	5/24/2006	5/25/2006
Depth in Feet	Cleanup Level	8 to 11	4 to 8	10 to 24	6 to 8	6 to 8	10 to 12
Volatiles in µg/kg							
Dichlorodifluoromethane		50 UJ					
Chloromethane		50 UJ					
Vinyl chloride		50 UJ					
Bromomethane		50 UJ					
Chloroethane		50 UJ					
Trichlorofluoromethane		50 UJ					
1,1-Dichloroethene		50 UJ					
Methylene chloride	20	20 UJ					
trans-1,2-Dichloroethene		50 UJ					
1,1-Dichloroethane		50 UJ					
2,2-Dichloropropane		50 UJ					
cis-1,2-Dichloroethene		50 UJ					
Chloroform		50 UJ					
1,1,1-Trichloroethane	2,000	50 UJ					
Carbon tetrachloride		50 UJ					
1,1-Dichloropropene		50 UJ					
Benzene	30	50 UJ					
1,2-Dichloroethane (EDC)		20 UJ					
Trichloroethene	30	20 UJ					
1,2-Dichloropropane		50 UJ					
Dibromomethane		50 UJ					
Bromodichloromethane	16,100(c)	50 UJ					
cis-1,3-Dichloropropene		50 UJ					
Toluene	7,000	50 UJ					
trans-1,3-Dichloropropene	17,500(c)	50 UJ					
1,1,2-Trichloroethane		50 UJ					
Tetrachloroethene	50	50 UJ					
1,3-Dichloropropane		50 UJ					
Dibromochloromethane	5	20 UJ					
1,2-Dibromoethane (EDB)	5	5 UJ					
Chlorobenzene		50 UJ					
1,1,1,2-Tetrachloroethane	33,300	50 UJ					
Ethylbenzene	6,000	50 UJ					
Xylenes	9,000	50 UJ					

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#### Table 1 - Analytical Results for Soil Samples

Sample ID	MTCA	SP5B-S3	SP8-S2	SP10-S4	SP12-S4	SP13-S4	SP16B-S4
Sampling Date	Method A	5/24/2006	5/25/2006	5/25/2006	5/24/2006	5/24/2006	5/25/2006
Depth in Feet	Cleanup Level	8 to 11	4 to 8	10 to 24	6 to 8	6 to 8	10 to 12
Styrene		50 UJ					
Bromoform		50 UJ					
Isopropylbenzene		50 UJ					
1,2,3-Trichloropropane	3,200,000(c)	50 UJ					
Bromobenzene		50 UJ					
1,1,2,2-Tetrachloroethane	1,600,000(c)	50 UJ					
n-Propylbenzene	4,000,000(c)	50 UJ					
2-Chlorotoluene	3,200,000(c)	50 UJ					
4-Chlorotoluene	4,000,000(c)	50 UJ					
1,3,5-Trimethylbenzene	3,200,000(c)	50 UJ					
tert-Butylbenzene		50 UJ					
1,2,4-Trimethylbenzene	4,000,000(c)	50 UJ					
sec-Butylbenzene		50 UJ					
1,3-Dichlorobenzene		50 UJ					
Isopropyitoluene	3,200,000(c)	50 UJ					
1,4-Dichlorobenzene		50 UJ					
1,2-Dichlorobenzene	800,000(c)	50 UJ					
n-Butylbenzene		50 UJ					
1,2-Dibromo-3-Chloropropane	5,000	50 UJ					
1,2,4-Trichlorobenzene	4,000,000(c)	50 UJ					
Hexachloro-1,3-butadiene		50 UJ					
Naphthalene	500	50 UJ					
1,2,3-Trichlorobenzene		50 UJ					

#### Table 1 - Analytical Results for Soil Samples

Sample ID	SP17-S3	SP18-S4	SP20-S3	SP14-S3	SP15-S3	SP19-S3
Sampling Date	5/26/2006	5/26/2006	5/26/2006	5/31/2006	5/30/2006	5/30/2006
Depth in Feet	8 to 11	11 to 15	8 to 11	8 to 11	8 to 12	8 to 11
Volatiles in µg/kg						
Dichlorodifluoromethane	50 UJ					
Chloromethane	50 UJ					
Vinyl chloride	50 UJ					
Bromomethane	50 UJ					
Chloroethane	50 UJ					
Trichlorofluoromethane	50 UJ					
1,1-Dichloroethene	50 UJ					
Methylene chloride	20 UJ					
trans-1,2-Dichloroethene	50 UJ					
1,1-Dichloroethane	50 UJ					
2,2-Dichloropropane	50 UJ					
cis-1,2-Dichloroethene	50 UJ					
Chloroform	50 UJ					
1,1,1-Trichloroethane	50 UJ					
Carbon tetrachloride	50 UJ					
1,1-Dichloropropene	50 UJ					
Benzene	50 UJ					
1,2-Dichloroethane (EDC)	20 UJ					
Trichloroethene	20 UJ					
1,2-Dichloropropane	50 UJ					
Dibromomethane	50 UJ					
Bromodichloromethane	50 UJ					
cis-1,3-Dichloropropene	50 UJ					
Toluene	50 UJ					
trans-1,3-Dichloropropene	50 UJ					
1,1,2-Trichloroethane	50 UJ					
Tetrachloroethene	50 UJ					
1,3-Dichloropropane	50 UJ					
Dibromochloromethane	20 UJ					
1,2-Dibromoethane (EDB)	5 UJ					
Chlorobenzene	50 UJ					
1,1,1,2-Tetrachloroethane	50 UJ					
Ethylbenzene	50 UJ					
Xylenes	50 UJ					

Sheet 8 of 9

#### Table 1 - Analytical Results for Soil Samples

Sample ID	SP17-S3	SP18-S4	SP20-S3	SP14-S3	SP15-S3	SP19-S3
Sampling Date	5/26/2006	5/26/2006	5/26/2006	5/31/2006	5/30/2006	5/30/2006
Depth in Feet	8 to 11	11 to 15	8 to 11	8 to 11	8 to 12	8 to 11
Styrene	50 UJ					
Bromoform	50 UJ					
Isopropylbenzene	50 UJ					
1,2,3-Trichloropropane	50 UJ					
Bromobenzene	50 UJ					
1,1,2,2-Tetrachloroethane	50 UJ					
n-Propylbenzene	50 UJ					
2-Chlorotoluene	50 UJ					
4-Chlorotoluene	50 UJ					
1,3,5-Trimethylbenzene	50 UJ					
tert-Butylbenzene	50 UJ					
1,2,4-Trimethylbenzene	50 UJ					
sec-Butylbenzene	50 UJ	50 UJ	50 UJ	.50 UJ	50 UJ	50 UJ
1,3-Dichlorobenzene	50 UJ					
Isopropyltoluene	50 UJ					
1,4-Dichlorobenzene	50 UJ					
1,2-Dichlorobenzene	50 UJ					
n-Butylbenzene	50 UJ					
1,2-Dibromo-3-Chloropropane	50 UJ					
1,2,4-Trichlorobenzene	50 UJ					
Hexachloro-1,3-butadiene	50 UJ					
Naphthalene	50 UJ					
1,2,3-Trichlorobenzene	50 UJ					

Sample analysis conducted by Advanced Analytical Laboratory (Redmond, WA).

U = Not detected at reporting limit indicated. J = Estimated value.

Detected concentrations are bolded.

Concentrations that exceed the screening criteria are boxed.

Blank indicates sample not analyzed for specific analyte or no MTCA cleanup level established.

(a) MTCA Method A cleanup level for chromium VI is 19.

MTCA Method A cleanup level for chromium III is 2,000 mg/kg.

(b) MTCA Method B soil direct contact cleanup level (ingestion only)

(c) MTCA Method B cleanup level.

(d) MTCA Method A cleanup level for gasoline mixtures without benzene is 30 mg/kg. MTCA Method A cleanup level for gasoline mixtures with benzene is 100 mg/kg.

#### Table 2 - Analytical Results for Grab Groundwater Water Samples

Sample ID	MTCA	SP-5B	SP-8	SP-10	SP-15
Sampling Date	Method A	6/7/2006	6/7/2006	6/7/2006	6/7/2006
	Cleanup Level				
NWTPH-Dx in mg/L					
Kerosene/Jet fuel		0.20 U	0.20 U	0.20 U	0.20 U
Diesel/Fuel oil	0.5	0.20 U	0.20 U	0.20 U	0.20 U
Heavy oil	0.5	0.50 U	0.50 U	0.50 U	0.50 U
NWTPH-Gx in mg/L					
Mineral spirits/Stoddard		0.10 U	0.10 U	0.10 U	0.10 U
Gasoline	0.8	0.10 U	0.10 U	0.10 U	0.10 U
Total Metals in mg/L					
Lead	0.015	0.002 U	0.002 U	0.002 U	0.002 U
Chromium	0.05	0.01 U	0.01 U	0.01 U	0.01 U
Cadmium	0.005	0.005 U	0.005 U	0.005 U	0.005 U
Arsenic	0.005	0.005 U	0.005 U	0.005 U	0.005 U
Mercury	0.002	0.001 U	0.001 U	0.001 U	0.001 U
Copper	0.059 (b)	0.01 U	0.01 U	0.01 U	0.01 U
Nickel	0.32 (b)	0.015	0.01 U	0.022	0.053
Zinc	4.8 (b)	0.003	0.001	0.002	0.002
Volatiles in µg/L					
Dichlorodifluoromethane		1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane		1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	0.2	0.2 U	0.2 U	0.2 U	0.2 U
Bromomethane		1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane		1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane		1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	400 (a)	1.0 U	1.0 U	7.1	1.0 U
Methylene chloride	5	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene		1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	800 (a)	4.2	1.0 U	2.7	1.0 U
2,2-Dichloropropane		1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene		1.0 U	1.0 U	1.0 U	1.0 U
Chloroform		1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	7,200 (a)	1.0 U	1.0 U	7.6	1.0 U
Carbon tetrachloride	5.6 (a)	1.0 U	1.0 U	7.5	1.0 U
1,1-Dichloropropene		1.0 U	1.0 U	1.0 U	1.0 U

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Sheet 1 of 3

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#### Table 2 - Analytical Results for Grab Groundwater Water Samples

Sample ID	MTCA	SP-5B	SP-8	SP-10	SP-15
Sampling Date	Method A	6/7/2006	6/7/2006	6/7/2006	6/7/2006
	Cleanup Level				
Benzene	5	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane (EDC)	5	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane		1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane		1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane		1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene		1.0 U	1.0 U	1.0 U	1.0 U
Toluene	1000	1.0	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene		1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane		1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane		1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane		1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (EDB)	0.01	0.01 U	0.01 U	0.01 U	0.01 U
Chlorobenzene		1.0 U	1.0 U	1.0 U	1.0 U
1,1,1,2-Tetrachloroethane		1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	700	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes	1000	1.0 U	1.0 U	1.0 U	1.0 U
Styrene		1.0 U	1.0 U	1.0 U	1.0 U
Bromoform		1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene		1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichloropropane		1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene		1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane		1.0 U	1.0 U	1.0 U	1.0 U
n-Propylbenzene		1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene		1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene		1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene		1.0 U	- 1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1.0 U

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#### Table 2 - Analytical Results for Grab Groundwater Water Samples

Sample ID	MTCA	SP-5B	SP-8	SP-10	SP-15
Sampling Date	Method A	6/7/2006	6/7/2006	6/7/2006	6/7/2006
	Cleanup Level				
sec-Butylbenzene		1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene		1.0 U	1.0 U	1.0 U	1.0 U
Isopropyltoluene		1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene		1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene		1.0 U	1.0 U	1.0 U	1.0 U
n-Butylbenzene		1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane		1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene		1.0 U	1.0 U	1.0 U	1.0 U
Hexachloro-1,3-butadiene		1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	160	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene		1.0 U	1.0 U	1.0 U	1.0 U

Sample analysis conducted by Advanced Analytical Laboratory (Redmond, WA)

U = Not detected at detection limit indicated.

Blank indicates no MTCA criteria available.

Detected concentrations are bolded.

Concentrations that exceed screening criteria are boxed.

(a) MTCA Method B groundwater non-carcinogenic screening level.

(b) MTCA Method B groundwater

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Figures

#### Vicinity Map

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Scale in Feet (Approximate)

Figure 1

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#### Map of Adjacent Sites



Source: Base map prepared from USGS Aerial Photo.



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Site and Exploration Map Dearborn Street Project - Herzog Glass





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Strataprobe Location and Number

#### APPENDIX A FIELD EXPLORATION METHODS AND ANALYSIS

Hart Crowser 17250-02 July 7, 2006

#### APPENDIX A FIELD EXPLORATION METHODS AND ANALYSIS

This appendix documents the processes Hart Crowser used in determining the nature of the soil and groundwater underlying the subject property and adjacent site addressed by this report. The discussion includes information on the following subjects:

- Explorations and Their Location;
- The Use of Strataprobe Explorations;
- Soil Classification; and
- Grab Groundwater Samples.

#### **Explorations and Their Location**

Subsurface explorations for this project include twelve Strataprobe explorations advanced throughout the subject property and seven on the adjacent site. The exploration logs within this appendix show our interpretation of the drilling/probing, sampling, and testing data. They indicate the depth where the soils change. Note that the change may be gradual. In the field, we classified the samples taken from the explorations according to the methods presented on Figure A-1 - Key to Exploration Logs. This figure also provides a legend explaining the symbols and abbreviations used in the logs.

**Location of Explorations.** Figure 2 shows the location of explorations, located by hand taping or pacing from existing physical features.

#### The Use of Strataprobe Explorations

Twelve strataprobes (SP-1, SP-2, SP-4, SP-5B, and SP-6 through SP-13) were advanced on May 24 and 25, 2006 at the subject property. In addition, seven strataprobes (SP-14, SP-15, SP-16B, and SP-17 through SP-20) were advanced on May 24 through 30, 2006, at the Goodwill Storage Building site. In the strataprobes a continuous 4-foot-long, 2-inch-diameter sampler was pushed and samples were collected. Probes were completed to depths ranging from approximately 6 to 16 feet below ground surface. Hart Crowser Field Representatives (Ben Stanton and Bruce McDonald) logged soil descriptions and placed soil in pre-cleaned 4-ounce glass sample jars. Filled sample jars were stored in a cooler with blue ice. Soils were screened in the field for the presence of volatile organic compounds (VOCs) using a PID. The Hart Crowser project manager selected samples for chemical analysis at representative locations to assess soil quality based on observed signs of potential contamination. Logs of these probes are presented on Figures A-2 through A-20.

#### Soil Classification

The Hart Crowser field representative visually classified the soil samples in general accordance with ASTM Method D 2488, prepared a log of soils encountered in the exploration, and recorded pertinent observations regarding conditions, types of soils encountered, and the depth to water. Soil descriptions include the following properties: relative density of sands and gravels/ consistency of silts and clays, moisture, color, minor constituents, and major constituents. The presence of non-soil substances (e.g., debris etc.) and odors or visual observations such as sheen that may indicate contamination were also noted.

#### Grab Groundwater Samples

Four grab groundwater samples were collected from three of the strataprobe explorations (SP-5B, SP-8, and SP-10) advanced at the subject property and from one of the strataprobe explorations (SP-15) advanced at the adjacent Goodwill Storage Building site. These samples were collected using low-flow sampling techniques through the strataprobe rods.

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### Key to Exploration Logs

#### Sample Description

(HC Standards\SRF\ A-1.dwg)

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Classification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field nor laboratory testing unless presented herein. Visual-manual classification methods of ASTM D 2488 were used as an identification guide.

Soil descriptions consist of the following:

Density/consistency, moisture, color, minor constituents, MAJOR CONSTITUENT, additional remarks.

#### **Density/Consistency** Soil density/consistency in borings is related primarily to the Standard Penetration Resistance. Soil density/consistency in test pits is estimated based on visual observation and is presented parenthetically on the test pit logs. SAND or GRAVEL Standard SILT or CLAY Standard Approximate Shear Strength Penetration Penetration Density Consistency Resistance (N) Resistance(N) In TSF in Blows/Epot in Blows/Foot Very loose 0 -4 Very soft 0 2 <0.125 -- 10 Soft Loose 4 2 4 0.125 - 0.25 0.25 - 0.5 Medium dense 10 - 30 Medium stiff 4 8 Stiff Dense 30 - 50 8 - 15 0.5 - 1.0 >50 - 2.0 Verv dense Very stiff 15 - 30 1.0 Hard >30 >2.0 Moisture **Minor Constituents** Estimated Percentage Not identified in description Drv Little perceptible moisture 0 - 5Slightly (clayey, silty, etc.) Damp Some perceptible moisture, probably below optimum 5 - 12 Moist Probably near optimum moisture content Clayey, silty, sandy, gravelly 12 - 30 Wet Much perceptible moisture, probably above optimum Very (clayey, silty, etc.) 30 - 50 Legends Test Symbols Sampling Test Symbols GS Grain Size Classification CN Consolidation **Boring Samples Test Pit Samples** UU . **Unconsolidated Undrained Triaxial** X Split Spoon $\square$ Grab (Jar) CU Consolidated Undrained Triaxial $\square$ Shelby Tube $\square$ Baq CD **Consolidated Drained Triaxial** m Cuttings $\square$ Shelby Tube QU **Unconfined Compression** DS **Direct Shear** Π Core Run К Permeability \* No Sample Recovery PP **Pocket Penetrometer** Р Tube Pushed, Not Driven Approximate Compressive Strength in TSF τv Torvane Approximate Shear Strength in TSF **Groundwater Observation Wells** CBR California Bearing Ratio Monument MD Moisture Density Relationship Surface Seal AL Atterberg Limits **Gravel Backfill** Water Content in Percent **Riser Pipe** Liquid Limit Bentonite Natural Δ Groundwater Level on Date on **Plastic Limit** ATD at Time of Drilling (ATD) PID Photoionization Detector Reading CA **Chemical Analysis** Well Screen DT In Situ Density Test Sand Pack Native Material Groundwater Seepage (Test Pits) ę



Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Concrete floor.	<b>⊥</b> 0	[ <b></b> ]	
(Loose to medium dense), dry, brown, slightly silty SAND with trace of gravel.	-		
		S-1	~(<0.1)
(Loose to medium dense), damp, brown SAND with trace of silt.			
		S-2	-(<0.1) CA
(Medium dense), wet, brown, slightly silty SAND with trace of gravel.			
	-10	S-3	(<0.1) CA
(Medium dense to stiff), wet, brown, interbedded, slightly gravelly, silty SAND to sandy SILT.			
	+15	S-4	- (<0.1)
Bottom of Probe at 16.0 Feet. Completed 05/25/06.			
	⊥ <sub>20</sub>		

s HARTCROWSER 17250-02 05/06 Figure A-2

- Refer to Figure A-1 for explanation of descriptions and symbols.
  Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
  Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
6-inch Concrete floor over Asphalt/Concrete/Brick fragments.			
(Loose to medium dense), dry, brown-gray silty SAND. (FILL)		S-1	-(<0.1)
(Medium stiff), damp, brown-gray, clayey SILT with occasional Sand and Gravel lenses.			
· · ·		S-2	- (<0.1)
(Stiff), dry to damp, brown-gray, very clayey SILT.			
	-10	S-3	-(<0.1) CA
(Stiff to very stiff), dry to damp, brown-gray very silty CLAY.		S-4	-(<0.1)
Sandy Gravel lens. (Very stiff), moist, gray, very silty CLAY with trace of sand and gravel. Sand lens.			
		S-5	<b>~(&lt;0.1)</b>
Refusal of probe.			
Bottom of Probe at 15.0 Feet. Completed 05/24/06. Refusal of probe.			
STRATAPE			

HARTCROWSER 17250-02 05/06 Figure A-3

- Refer to Figure A-1 for explanation of descriptions and symbols.
  Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
  Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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-1-HARTCROWSER 17250-02 05/06 Figure A-4

- Refer to Figure A-1 for explanation of descriptions and symbols.
  Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
  Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.



**HARTCROWSER** 17250-02 05/06 Figure A-5

- Refer to Figure A-1 for explanation of descriptions and symbols.
  Soil descriptions and stratum lines are interpretive and actual changes
- may be gradual.3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
6-inch Concrete floor over (loose), damp, brown, gravelly to very gravelly SAND with brick, concrete, and asphalt fragments. (FILL)		S-1	-(<0.1)
(Loose to medium dense), damp to moist, brown, silty SAND with trace of brick and asphalt fragments.		S-2	-(<0.1) CA
(Loose to medium dense), wet brown, slightly silty SAND.	- ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	S-3	- (<0.1)
Grading medium dense.	-	s-4	-(<0.1)
(Medium dense to medium stiff), wet, brown, very silty SAND to very sandy SILT.		S-5	- (<0.1)
Bottom of Probe at 16.0 Feet. Completed 05/25/06.			

HARTCROWSER 17250-02 05/06 Figure A-6

- Refer to Figure A-1 for explanation of descriptions and symbols.
  Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
  Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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HARTCROWSER 17250-02 05/06 Figure A-7

- Refer to Figure A-1 for explanation of descriptions and symbols.
   Soil descriptions and stratum lines are interpretive and actual changes may be gradual
- and beschpitons and stratem mission of marphotoc and beaut shares may be gradual.
  Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
4 inches of Asphalt over (loose to medium dense), dry to damp, grayish brown, slightly silty, gravelly SAND with brick fragments. (FILL)		S-1	- (<0.1)
(Loose to medium dense), damp, brown, slightly silty, slightly gravelly SAND.		S-2	-(<0.1) CA
(Medium dense), moist, brown, silty SAND. Silt lens. (Medium dense to medium stiff), wet,	10	S-3	- (<0.1)
brown mottled orange, very silty SAND to very sandy SILT. Interbedded thin Silt layers in SAND to 12 feet, SILT to 13 feet, interbedded SAND and SILT to 14 feet.		S-4	-(<0.1) CA
Bottom of Probe at 14.0 Feet. Completed 05/25/06.			
Note: Grab groundwater sample collected for chemical analysis.	20		

HARTCROWSER 17250-02 05/06 Figure A-8

- Refer to Figure A-1 for explanation of descriptions and symbols.
   Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
   Groundwater level, if indicated, is at time of drilling (ATD) or for date
- specified. Level may vary with time.

 $\left\{ \begin{array}{c} \\ \\ \\ \\ \end{array} \right\}$ 



HARTCROWSER 05/06 17250-02 Figure A-9

- Refer to Figure A-1 for explanation of descriptions and symbols.
   Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
- 3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
6-inch Concrete floor over (loose), dry, brown, gravelly SAND.			
(Medium stiff), damp, brown, clayey SILT with trace of wood fragments. (FILL)		S-1	- (<0.1)
(Loose to medium dense), dry to damp, dark brown, slightly gravelly, silty to very silty SAND with scattered brick fragments. (FILL)		S-2	- (<0.1)
(Medium dense), damp to moist, reddish brown, slightly silty, gravelly SAND with scattered brick fragments. (FILL)		S-3	-(<0.1)
(Loose), wet, brown, slightly silty, gravelly SAND.	10 	S-4	-(<0.1) CA
(Loose to medium dense), wet, brown, slightly silty, slightly gravelly SAND. Bottom of Probe at 14.0 Feet. Completed 05/25/06.		S-5	-(<0.1)
Note: Grab groundwater sample collected for chemical analysis.			
Note: Grab groundwater sample collected for chemical analysis.			

H HARTCROWSER . 05/06 17250-02 Figure A-10

- Refer to Figure A-1 for explanation of descriptions and symbols.
   Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
   Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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**HARTCROWSER** 17250-02 05/06 Figure A-11

- 1. Refer to Figure A-1 for explanation of descriptions and symbols.
- Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
- Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.



H HARTCROWSER 05/06 17250-02 Figure A-12

- Refer to Figure A-1 for explanation of descriptions and symbols.
   Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
   Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
6-inch Concrete floor over (loose), damp, brown, slightly gravelly SAND. (FILL)		S-1	-(<0.1)
	_	S-2	- (<0.1)
(Loose), damp, brown, gravelly SAND with trace of silt.		S-3	-(<0.1)
(Medium dense), moist, brown, slightly gravelly, silty SAND with Silt layers.		S-4	-(<0.1) CA
(Medium dense), wet, brown, slighlty gravelly, very silty SAND. (Medium stiff), wet, brown, slightly gravelly, very sandy SILT.		S-5	-(<0.1) CA
Bottom of Probe at 10.0 Feet. Completed 05/24/06.			
	15		



- Refer to Figure A-1 for explanation of descriptions and symbols.
   Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
   Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
2 inches of Asphalt over brown, silty, gravelly SAND over gray, silty, fine SAND with trace of organic material. (FILL)			
(Medium stiff), mottled gray-brown, clayey SILT.		S-1	-(<0.1)
(Stiff), moist, gray, clayey SILT with trace of mottling.			
		S-2	- (<0.1)
(Medium dense), moist to wet, brown, silty, fine SAND with scattered Silt partings.		S-3	- (<0.1), CA
Bottom of Probe at 14.0 Feet. Completed 05/31/06.		S-4	-(<0.1)
명 Bottom of Probe at 14.0 Feet. Completed 05/31/06. 안 같			
STRATAPROBE WO WELL 17250-025P-GPJ HC_			
STRATAPROBI			

**HARTCROWSER** 17250-02 05/06 Figure A-14

- Refer to Figure A-1 for explanation of descriptions and symbols.
   Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
   Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

4.1

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Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
2 inches of Concrete over (medium stiff), moist, gray, clayey SILT with scattered sand and organic material. (FILL)		S-1	- (3.1)
Moist, gray, silty, fine SAND zones. (Medium dense), moist, gray, silty, sandy GRAVEL. (FILL)		S-2	-(1.1)
(Medium dense), moist to wet, mottled gray-brown, silty SAND.	 10 <u>↓</u> 	S-3	-(<0.1) CA
(Stiff), wet, brownish gray, clayey SILT with scattered fine sandy Silt zones.		S-4	-(<0.1)
Bottom of Probe at 16.0 Feet. Completed 05/30/05. Note: Grab groundwater sample collected for chemical analysis.			

HARTCROWSER 17250-02 05/05 Figure A-15

- Refer to Figure A-1 for explanation of descriptions and symbols.
   Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
   Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
6-inch Concrete floor over (soft to medium stiff), damp, grayish brown, slightly clayey SILT. (FILL)		S-1	- (<0.1)
(Medium stiff), damp, gray-brown, slightly clayey SILT. (FILL)		S-2	-(<0.1) CA
(Medium stiff to stiff), damp, gray-brown, slightly clayey to clayey SILT.		S-3	- (<0.1)
(Loose to medium dense), wet, brown, slightly silty SAND.		S-4	-(<0.1) CA
(Medium stiff), damp, gray, very clayey SILT to very silty CLAY.		S-5	- (<0.1)
Bottom of Probe at 16.0 Feet. Completed 05/25/06.			



- Refer to Figure A-1 for explanation of descriptions and symbols.
   Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
   Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.



1 11 HARTCROWSER 05/06 17250-02 Figure A-17

- Refer to Figure A-1 for explanation of descriptions and symbols.
   Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
   Groundwater level, if indicated, is at time of drilling (ATD) or for date provided to any more many with time.
- specified. Level may vary with time.

2.5



HARTCROWSER 05/06 17250-02 Figure A-18

- Refer to Figure A-1 for explanation of descriptions and symbols.
   Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
- 3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Crushed GRAVEL (5/8-inch minus) over (loose), moist, brown to gray, silty, gravelly SAND. (FILL) (Medium stiff), damp, gray, clayey SILT with scattered organic material. (FILL)		S-1	- (<0.1)
(Medium stiff), moist, gray to dark brownish gray SILT with organic Silt laminations. Slight hydrogen sulfide-like odor.		S-2	- (<0.1)
(Medium dense), moist to wet, gray SAND with scattered gravel.		S-3	-(<0.1) CA
(Medium dense to stiff), wet, light gray, very silty, fine SAND to very sandy SILT, thinly laminated with scattered brown oxidized zones.		S-4	-(<0.1)
		S-5.	-(<0.1)
Bottom of Probe at 16.0 Feet. Completed 05/30/06.			



- Refer to Figure A-1 for explanation of descriptions and symbols.
   Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
   Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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HARTCROWSER 05/06 17250-02 Figure A-20

- Refer to Figure A-1 for explanation of descriptions and symbols.
   Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
- Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

## APPENDIX B CHEMICAL DATA QUALITY REVIEW AND CERTIFICATES OF ANALYSIS

Annendix R

Hart Crowser 17250-02 July 7, 2006

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### APPENDIX B CHEMICAL DATA QUALITY REVIEW AND CERTIFICATES OF ANALYSIS

Twenty-four soil samples collected on May 24 and 25, 2006, were submitted to Advanced Analytical Laboratory of Redmond, WA for analysis of one or more of the following:

- Total Metals Arsenic, Cadmium, Chromium, Lead, Mercury, Copper, Nickel, and Zinc by EPA Method 7000 series;
- VOCs (EPA Method 8260B);
- BTEX (EPA Method 8021B);
- NWTPH-Gx; and
- NWTPH-Dx.

Four grab groundwater samples collected on May 24 and 25, 2006, were submitted to Advanced Analytical Laboratory of Redmond, WA for analysis of one or more of the following:

- Total Metals Arsenic, Cadmium, Chromium, Lead, Mercury, Copper, Nickel, and Zinc by EPA Method 7000 series;
- VOCs (EPA Method 8260B);
- NWTPH-Gx; and
- NWTPH-Dx.

The following criteria were evaluated in the standard data quality review process for the results:

- Holding Times;
- Method Blanks;
- Surrogate Recoveries;
- Laboratory Control Sample (LCS) Recoveries;
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries; and
- Laboratory Duplicate Relative Percent Differences (RPDs).

Based on this review, the soil data holding times for VOCs, gasoline-range TPH, and BTEX compounds were exceeded by 14 days or less. Results and reporting limits have been qualified as estimates. The remaining soil and groundwater data are acceptable for use as reported.

### Soil Samples

**Total Metals.** The required holding times were met. No method blank contamination was detected. Laboratory duplicate RPDs were acceptable. Laboratory LCS recoveries were acceptable.

**NWTPH-Dx.** The required holding times were met. No method blank contamination was detected. Surrogate recoveries were within laboratory control limits.

**NWTPH-Gx.** The required holding times were not met. No method blank contamination was detected. Laboratory duplicate RPDs were acceptable. Surrogate recoveries, LCS recoveries, and MS and MSD recoveries were within laboratory control limits.

**BTEX.** The required holding times were not met. No method blank contamination was detected. Laboratory duplicate RPDs were acceptable. Laboratory LCS recoveries were acceptable. Surrogate recoveries, LCS recoveries, and MS and MSD recoveries were within laboratory control limits.

**VOCs.** The required holding times were met. No method blank contamination was detected. Surrogate recoveries, LCS recoveries, and MS and MS recoveries were within laboratory control limits.

### Grab Groundwater Samples

**Total Metals.** The required holding times were met. No method blank contamination was detected. Laboratory duplicate RPDs were acceptable. Laboratory LCS recoveries were acceptable.

**NWTPH-Dx.** The required holding times were met. No method blank contamination was detected. Laboratory duplicate RPDs were acceptable. Surrogate recoveries were within laboratory control limits.

**NWTPH-Gx.** The required holding times were met. No method blank contamination was detected. Laboratory duplicate RPDs were acceptable. Surrogate recoveries were within laboratory control limits.

**VOCs.** The required holding times were met. No method blank contamination was detected. Surrogate recoveries, LCS recoveries, and MS and MSD recoveries were within laboratory control limits.

J:\jobs\1725002\Herzog Phase II.doc

## CERTIFICATES OF ANALYSIS ADVANCED ANALYTICAL LABORATORY

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ANALYTICAL

Environmental Testing Laboratory

June 23, 2006

Julie Wukelic Hart Crowser, Inc. 1910 Fairview Avenue East Seattle, WA 98102

Dear Ms. Wukelic:

Please find enclosed the analytical data report for the *Dearborn/Herzog*, 17250 (A60607-1) Project.

Samples were received on *June 07, 2006*. The results of the analyses are presented in the attached tables. Applicable reporting limits, QA/QC data and data qualifiers are included. A copy of the chain-of-custody and an invoice for the work is also enclosed.

ADVANCED ANALYTICAL LABORATORY appreciates the opportunity to provide analytical services for this project. Should there be any questions regarding this report, please contact me at (425) 497-0110.

It was a pleasure working with you, and we are looking forward to the next opportunity to work together.

Sincerely,

Ivanov

Val G. Ivanov, Ph.D. Laboratory Manager

Overlake Business Center ■ 2821 152 Avenue NE ■ Redmond, WA 98052 ph 425.497.0110 fax 425.497.8089 *E-mail: aachemlab@yahoo.com* 

> This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized.

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Sample Custody Record	HARTCROWSER	art ser, 1910 Fairview Avenue East Seattle, Washington 98102-3699 Phone: 206-324-9530 FAX: 206-328-5581
JOB <u>17250-00</u> AB NUMBER PROJECT NAME <u>Dearborn Prop.</u> <u>Goodwill</u> HART CROWSER CONTACT <u>Julis</u> <u>Wukelic</u> SAMPLED BY: <u>BUS</u>	1 + 4 7 +	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
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AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

NWTPH-Gx/BTEX		MTH BLK	LCS	SP1-S3	SP4-S4	SP7-S2	SP8-S2	SP8-S4
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	· 06/07/06	06/07/06	06/07/06
NWTPH-Gx, mg/kg_								
Mineral spirits/Stoddard	5.0	nd	LJ nd	nd زربن	nd زېب	nd تې	ч <u>г</u> nd	ut ndu
Gasoline	5.0	nd	🕡 nd	J nd	l nd	l nd	√ nd	J nd
<u> ВТЕХ (8021В) , µg/kg_</u>								
Benzene	20	nd l	88% آج	nd (	nd تربا	և <u>յ</u> nd	uj	nd 6
Toluene	50	nd	112%	nd	nd	nd		nd
Ethylbenzene	50	nd	1	nd	nď	nd		nd
Xylenes	50	nd	ſ	nd	l nd	nd nd	Ŷ	nd
Surrogate recoveries:								
Trifluorotoluene		79%	86%	96%	92%	86%	92%	92%
Bromofluorobenzene		85%	96%	101%	94%	· 97%	103%	101%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 70% TO 130%

Acceptable RPD limit: 30%

AAL Job Number:	A60607-1
Client:	Hart Crowse
Project Manager:	Julie Wukeli
Client Project Name:	Dearborn/H
Client Project Number:	17250
Date received:	06/07/06

Analytical Results							MS
NWTPH-Gx/BTEX		SP10-S4	SP12-S4	SP12-S5	SP13-S4	SP18-S4	SP12-S4
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
NWTPH-Gx, mg/kg			6				
Mineral spirits/Stoddard	5.0	nd	nd L	h تې	nd کې	ካጋ nd	45
Gasoline	5.0	nd	v nd	nd nd	V nd	nd nd	
<u>ВТЕХ (8021В) , µg/kg_</u>							
Benzene	20		,	nd	2نم		94%
Toluene	50			nd			102%
Ethylbenzene	50			nd			
Xylenes	50			nd			
Surrogate recoveries:					•		•
Trifluorotoluene		82%	89%	87%	85%	86%	88%
Bromofluorobenzene		94%	99%	97%	86%	96%	110%

Data Qualifiers and Analytical Comment nd - not detected at listed reporting limits na - not analyzed C - coelution with sample peaks M - matrix interference J - estimated value

Results reported on dry-weight basis Acceptable Recovery limits: 70% TO 13<sup>i</sup> Acceptable RPD limit: 30%

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A) w/28/06

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AAL Job Number:	A60607-1
Client:	Hart Crowse
Project Manager:	Julie Wukeli
Client Project Name:	Dearborn/H
Client Project Number:	17250
Date received:	06/07/06

Analytical Results		MSD	RPD				
NWTPH-Gx/BTEX		SP12-S4	SP12-S4	MTH BLK	LCS	SP14-S3	SP15-S3
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting 06/07/06 06/07/06 06/09/06 06		06/09/06	06/09/06	06/09/06		
Date analyzed	Limits	06/07/06	06/07/06	06/09/06	06/09/06	06/09/06	06/09/06
NWTPH-Gx, mg/kg							
Mineral spirits/Stoddard	5.0			nd l	行 nd	v <u>⊐</u> nd	ليح الطرب
Gasoline	5.0			nd	🗸 nd	v nd_	
			•				
<u>BTEX (8021B) , μg/kg</u>							
Benzene	20	96%	2%	nd V	- <del>J</del> 101%		
Toluene	50	103%	0%	<sup>•</sup> nd	98%		
Ethylbenzene	50		·	nd			
Xylenes	50 ·			nd 🗸	<u> </u>		
Surrogate recoveries:			•			•	
Trifluorotoluene		99%		121%	92%	74%	75%
Bromofluorobenzene		1 <b>16%</b>		106%	83%	98%	97%

Data Qualifiers and Analytical Comment nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 70% TO 13<sup>4</sup> Acceptable RPD limit: 30% 1

AAL Job Number:	A60607-1
Client:	Hart Crowse
Project Manager:	Julie Wukeli
Client Project Name:	Dearborn/H
Client Project Number:	17250
Date received:	06/07/06

NWTPH-Gx/BTEX		SP19-S3	4
Matrix	Soil	Soil	
Date extracted	Reporting	06/09/06	
Date analyzed	Limits	06/09/06	•

NWTPH-Gx, mg/kg_		
Mineral spirits/Stoddard	5.0	nd Ly
Gasoline	5.0	nd
<u>BTEX (8021B) , μg/kg</u>		
Benzene	20	
Toluene	50	
Ethylbenzene	.50	
Xylenes	50	
· ·		
Surrogate recoveries:		
Trifluorotoluene		71%
Bromofluorobenzene		97%

Data Qualifiers and Analytical Comment nd - not detected at listed reporting limits na - not analyzed C - coelution with sample peaks M - matrix interference J - estimated value Results reported on dry-weight basis

Acceptable Recovery limits: 70% TO 13 Acceptable RPD limit: 30%

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AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

#### Analytical Results

NWTPH-Dx, mg/kg		MTH BLK	SP1-S2	SP1-S3	SP2-S3	SP4-S4	SP5B-S3	SP6-S2
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
								۰.
Kerosene/Jet fuel	20	лd	nd	nd	nd	∍nd	nd	nd
Diesel/Fuel oil	20	nd	nd	nď	nd	nd	nd	nd
Heavy oil	50	. nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries:								• •
Fluorobiphenyl	- · ·	120%	108%	119%	123%	125%	109%	124%
o-Terphenyl		130%	102%	105%	111%	110%	99%	113%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis Acceptable Recovery limits: 70% TO 130%

Acceptable RPD limit: 30%

A60607-1
Hart Crowser, Inc.
Julie Wukelic
Dearborn/Herzog
17250
06/07/06

NWTPH-Dx, mg/kg		MTH BLK	SP7-S2	SP8-S2	SP8-S4	SP9-S2	SP9-S3	SP10-S4
Matrix	Soil	Soil	Soil	Soil	) Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Kerosene/Jet fuel	20	nd						
Diesel/Fuel oil	20	nd	nd	nd	nd	nd	nd	. nd
Heavy oil	50	nd						
Surrogate recoveries:					_			
Fluorobiphenyl		120%	123%	125%	121%	119%	128%	125%
o-Terphenyl		130%	111%	112%	107%	107%	118%	118%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

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NWTPH-Dx, mg/kg		MTH BLK	SP11-S2	SP11-S3	SP12-S2	SP12-S3	SP12-S4
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
				۰.		1	
Kerosene/Jet fuel	20	nd	nd	nd	· nd	nd	nd
Diesel/Fuel oil	20	nd	nd	nd	nd	nd	nd
Heavy oil	50	nd	nd	nd	nd	• nd	nd
Surrogate recoveries:							
Fluorobiphenyl		120%	126%	116%	123%	110%	112%
o-Terphenyi		130%	124%	108%	113%	103%	110%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

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NWTPH-Dx, mg/kg		MTH BLK	SP12-S5	SP13-S4	SP13-S5	SP16B-S2	SP16B-S4
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Kerosene/Jet fuel	20	nd	nd	nd .	nd	nd	nd
Diesel/Fuel oil	20	nd	nd	nd	nd	nđ	nd
Heavy oil	50	nd	nd	nd	nd	nd	nd
Surrogate recoveries:	,			e		. •	
Fluorobiphenyl	•	120%	126%	128%	118%	123%	124%
o-Terphenyl		130%	113%	114%	106%	113%	113%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

A60607-1
Hart Crowser, Inc.
Julie Wukelic
Dearborn/Herzog
17250
06/07/06

Analytical Results							Dupl
NWTPH-Dx, mg/kg		MTH BLK	SP17-S3	SP18-S2	SP18-S4	SP20-S1	SP20-S1
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Kerosene/Jet fuel	20	nd	nd	nd	nd	nd	nd
Diesel/Fuel oil	20	nd	nd	nd	nd	nd	nd
Heavy oil	50	nd	nd	nd	nd	nd	nd
Surrogate recoveries:							
Fluorobiphenyl		120%	112%	117%	112%	127%	113%
o-Terphenyl		130%	107%	110%	111%	116%	112%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

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C - coelution with sample peaks

M - matrix interference

J - estimated value

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

Analytical Results				Dupl			
NWTPH-Dx, mg/kg		MTH BLK	SP20-S3	SP20-S3	SP14-S3	SP15-S3	SP19-S3
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/09/06	06/09/06	06/09/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/09/06	06/09/06	06/09/06
Kerosene/Jet fuel	20	nd	nd	nd	nd	nd	'nd
Diesel/Fuel oil	20	. nd	nd	nd	nd	nd	nd
Heavy oil	50	nd	nd	nd	nd	nd	. nd
Surrogate recoveries:							
Fluorobiphenyl		120%	114%	122%	, 70%	99%	70%
o-Terphenyl		130%	107%	117%	94%	96%	96%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis Acceptable Recovery limits: 70% TO 130% Acceptable RPD limit: 30%

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AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

	MTH BLK	MTH BLK
Soil	Soil	Soil
Reporting	06/07/06	06/09/06
Limits	06/07/06	06/09/06
20	nd	nd
20	nd	nd
50	nd	nd
	×	
	120%	93%
	. 130%	106%
	Reporting Limits 20 20	Soil         Soil           Reporting         06/07/06           Limits         06/07/06           20         nd           20         nd           50         nd           120%         120%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

\\_\_! {\_\_! Results reported on dry-weight basis Acceptable Recovery limits: 70% TO 130% Acceptable RPD limit: 30%

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8260B, µg/kg		MTH BLK	LCS	SP5B-S3	SP8-S2	SP10-S4	SP12-S4
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Dichlorodifluoromethane	50	nd	ЦJ	nd	년 nd i	und Indi	ν <u>j</u> ndυ
Chloromethane	50	nd	) Š	nd	nd	nd	nd j
Vinyl chloride	50	nd		nd	nd	nd	nd
Bromomethane	50	nđ	1	nd	nd	nd	nd
Chloroethane	50	nd		nd	nd	nd	nd
Trichlorofluoromethane	50	nd	}	nd	nd	nd	nd
1,1-Dichloroethene	50	nd		nd	nd	nd	nd
Methylene chloride	20	nd		nd	nd	nd	nd
trans-1,2-Dichloroethene	50	nd		nd	nd	nd	nd
1,1-Dichloroethane	50	nd		nd	nd	nd	nd
2,2-Dichloropropane	. 50	nd		nd	nd	nd	nd
cis-1,2-Dichloroethene	50	nd		nd	nd	nd	nd
Chloroform	50	nd		nd	nd	nd	nd ]
1,1,1-Trichloroethane	50	nd		nd	nd	nd	nd
Carbontetrachloride	50	nd		nd	nd	nd	nd
1,1-Dichloropropene	50	nd		nd	nd	nd	nd
Benzene	50	nd	88%	nd	nd	nd	nd
1,2-Dichloroethane(EDC)	20	nd		nd	nd	' nd	nd
Trichloroethene	20	nd	87%	nd	nd	nd	nd
1,2-Dichloropropane	50	nd		nd	nd	nd	nď
Dibromomethane	50	nd		nd	nd ·	nd	nd
Bromodichloromethane	50	nd		nd	nd	nd	nd
cis-1,3-Dichloropropene	50	nd		, nd	nd	nd	nd
Toluene	50	nd	120%	nd	nd	nd	nd
trans-1,3-Dichloropropene	50	nd		nd	nd	nd	nd
1,1,2-Trichloroethane	50	nd		nd	nd	nd	nd
Tetrachloroethene	50	nđ		nd	nd	nd	nd
1,3-Dichloropropane	50	nd		nd	nd	nd	nd
Dibromochloromethane	20	nd		nd	nd	nd	nd
1,2-Dibromoethane (EDB)*	5	nd		nd	nd	nd	nd
Chlorobenzene	50	nd	94%	. nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	50	nd		nd	nd	nd	nd
Ethylbenzene	50	, nd		nd	nd	nd	nd
Xylenes	50	nd		nd	nd	nd	nd
Styrene	50	nd.		nd	nd	nd	nd
Bromoform	50	nđ	$\mathbf{V}$	nd	🚽 nd 🗸	nd nd	✓nd 、

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AAL Job Number:	A
Client:	н
Project Manager:	J
Client Project Name:	D
Client Project Number:	1
Date received:	0

A60607-1 Hart Crowser, Inc. Julie Wukelic Dearborn/Herzog 17250 06/07/06

#### Analytical Results

8260B, µg/kg		MTH BLK	LCS	SP5B- <u>S3</u>	SP8-S2	SP10-S4	SP12-S4
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
isopropylbenzene	50	nd	WT	nd	⊷ <u>ς</u> nd	LT nd	WT nd W
1,2,3-Trichloropropane	50	nd		nd	l nd	nd l	nd l
Bromobenzene	50	nd		nd	· nd	nd	nd
1,1,2,2-Tetrachloroethane	50	nd		nd	nd	nd	nd
n-Propylbenzene	50	лd		nd	nd	nd	nd
2-Chlorotoluene	50	nd		nd	nd	nd	nd
4-Chlorotoluene	50	nd		nd	nd	nd	nd
1,3,5-Trimethylbenzene	50	nd		nd	nd	nd	nd
tert-Butylbenzene	50	nd		nd	nd	nd	nď
1,2,4-Trimethylbenzene	50	nd		nd	nd	nd	nd
sec-Butylbenzene	50	nd		nd	nd	nd	nd
1,3-Dichlorobenzene	50	. nd		nd	nd	nd	nd
Isopropyltoluene	50	nd		nd	nd	nd	nd
1,4-Dichlorobenzene	<sup>.</sup> 50	nd		nd	nd	nd	nd
1,2-Dichlorobenzene	-50	nd		nd	nd	nd	nd
n-Butylbenzene	50	nd		nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	50	nd		nd	nd	nd	nď
1,2,4-Trichlorobenzene	50	<sup>′</sup> nd		nd	nd	nd	nd
Hexachloro-1,3-butadiene	50	nd	1	nd	nd	nd	nd
Naphthalene	50	nd		nd	nd	) nd	nd
1,2,3-Trichlorobenzene	50	nd	V	nd	V nd	<u>ال ال</u>	nd
*-instrument detection limits					\$		
Surrogate recoveries							
Dibromofluoromethane		91%	84%	88%	84%	79%	82%
Toluene-d8		120%	113%	114%	118%	118%	120%
1,2-Dichloroethane-d4		75%	80%	70%	70%	71%	70%
4-Bromofluorobenzene		119%	117%	119%	118%	. 116%	113%_

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits

Acceptable Recovery limits: 70% TO 130% Acceptable RPD limit: 30%

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A60607-1
Hart Crowser, Inc.
Julie Wukelic
Dearborn/Herzog
17250
06/07/06

8260B, µg/kg		MTH BLK	SP13-S4	SP16B-S4	SP17-S3	SP18-S4	SP20-S3
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Dichlorodifluoromethane	50	nd	슈丁 nd	VJ nd I	بر nd	այ nd	Ψ, nd
Chloromethane	50	nd	J nd	nd	nd nd	nd	N nd
Vinyl chloride	50	nd	nd	nđ	nd	nd	nd
Bromomethane	50	nd	nd	nd	nď	nd	nd
Chloroethane	50	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	50	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	50	nd	nd	nd	nd	nd	nd
Methylene chloride	20	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	50	· nd	nd	nd	nď	nd	nd
1,1-Dichloroethane	50	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	50	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	50	nd	l nd	nd	nd	nd	nd
Chloroform	50	nd	nd	лd	nd	nd	nd
1,1,1-Trichloroethane	· 50	nd	nd	nd	nd	nd	nd
Carbontetrachloride	50	nd	nd	nd	nd	nd	nd
,1-Dichloropropene	50	nd	nd	nd	nd	nd	nd
Benzene	50	nd	nd	nd	nd	nd	nd
,2-Dichloroethane(EDC)	20	nd	nd	nd	nd	nd	лd
Frichloroethene	20	nđ	nď	nd	nd	nd	nd
,2-Dichloropropane	'50	nd	nd	nd	nd	nd	nd
Dibromomethane	50	nd	nd	nd	nd	nd	nd
Bromodichloromethane	50	nd	nd	nd	nd	nd	nd
is-1,3-Dichloropropene	50	nd	nd	nd	nd	nd	nd
oluene	50	nd	nd	nd I	nd	nd	nd
rans-1,3-Dichloropropene	50	nd	. nd	nd	, nd	nď	nd
,1,2-Trichloroethane	50	nd	nd	nd	nd	nd	nď
etrachloroethene	50	nd	nd	nd	nd	nd	nd
,3-Dichloropropane	50	nd	nd	nd	nd	nd	nd
Dibromochloromethane	20	nd	nd	nd	nd	nd	nd
,2-Dibromoethane (EDB)*	5	nď	nd	nd	nd	nd	nd
hlorobenzene	50	лd	nd	nd	nd	nđ	nd
,1,1,2-Tetrachloroethane	50	nd	nd	nd	nď	nd	nď
thylbenzene	50	nđ	nd	nd	nd	nd	nd
(ylenes	50	nd	nd	nd	nd	nd	nď
Styrene	50	nd	nd	nd	nď	nd	nd
Iromoform	50	nd	v nd	/ nd	d nd	d nd	nd

A) 6/28/04

AAL Job Number:	A60607-1
Client:	Hart Crows
Project Manager:	Julie Wuke
Client Project Name:	Dearborn/l
Client Project Number:	17250
Date received:	06/07/06

vser, Inc. celic /Herzog

Analytical Results

8260B, µg/kg		MTH BLK	SP13-S4	SP16B-S4	SP17-S3	SP18-S4	SP20-S3
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
lsopropylbenzene	50	nd	VJ nd	י∆ nd	ሳ፲ nd	1	NJ nd U
1,2,3-Trichloropropane	50	nd	l nd	nd	nd	nd	nd nd
Bromobenzene	50	nd	nd	nd	nd	nd	l nd
1,1,2,2-Tetrachloroethane	<b>50</b> .	nd	nd	nd	nd	nd	nd
n-Propylbenzene	50	nd	nd	l nd	nd	nd	nd
2-Chlorotoluene	50	nd	nd	nď	nd	nd	'nd
4-Chlorotoluene	50	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	50	nd	nd	nd	, nd	nd	nd
ert-Butylbenzene	50	nd	nď	nd	nd	nd	nd
1,2,4-Trimethylbenzene	50	nd	nd	nd nd	nd	nď	nd
sec-Butylbenzene	50	nd	nd	nd	nd	nd	nď
,3-Dichlorobenzene	50	nd	nd	nd nd	nd	nd	l nd
sopropyltoluene	50 ·	nd	nd	nd	nd	nd	nd
,4-Dichlorobenzene	50	nd	nd	nd	⁺nd	nd	nd
,2-Dichlorobenzene	50	nd	nd	( nd	nd	nd	nd
n-Butylbenzene	50	nd	nd	nd	nd	nd	nd
,2-Dibromo-3-Chloropropane	50	nd	nd	nd	nd	nd	nď
,2,4-Trichlorobenzene	50	nd	nd	nd	nd	nd nd	nd
lexachloro-1,3-butadiene	50	nd	nd	nd	nd	' nd	nd
Naphthalene	50	nd	nd	nd	, nd	nd I	nd
,2,3-Trichlorobenzene	50	nd	V nd	nd nd	U nd	V nd	v nd
-instrument detection limits							
Surrogate recoveries							
Dibromofluoromethane		· 91%	79%	74%	73%	73%	73%
oluene-d8		120%	123%	119%	111%	118%	105%
,2-Dichloroethane-d4		75%	70%	73%	84%	79%	97%
Bromofluorobenzene		119%	113%	108%	120%	116%	127%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits Acceptable Recovery limits: 70% TO 130% Acceptable RPD limit: 30%

Ø 6/28/04

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

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Analytical Results		,	MSD	MSD	RPD		
8260B, µg/kg		MTH BLK	SP20-S3	SP20-S3	SP20-S3	MTH BLK	LCS
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/09/06	06/09/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/09/06	06/09/06
Dichlorodifluoromethane	50	nd	uj			nd	ns.
Chloromethane	50	nd	<u>ر</u>			nd	5
Vinyl chloride	50	nd	1			. nd	
Bromomethane	50	nd				nd	
Chloroethane	50	nd	1			nd	
Trichlorofluoromethane	50	nd				nd	
1,1-Dichloroethene	50	, nd				nd	
Methylene chloride	20	nd				nd	
trans-1,2-Dichloroethene	50	nd				nd	
1,1-Dichloroethane	50	nd				nd	l l
2,2-Dichloropropane	50	nd				nd	
cis-1,2-Dichloroethene	50	nd				nd	
Chloroform	50	nd				nd	
1,1,1-Trichloroethane	50	nd	1			nd	
Carbontetrachloride	50	nd				nď	
1,1-Dichloropropene	50	nd	1			nd	
Benzene	50	nd	75%	70%	7%	nd	. 91%
1,2-Dichloroethane(EDC)	20	nd	1	,		nd	
Trichloroethene	20	nd	101%	110%	8%	nd	80%
1,2-Dichloropropane	50	nd				nd	
Dibromomethane	50	nd				nd	
Bromodichloromethane	50	nd	•			nd	
cis-1,3-Dichloropropene	50	nd				nd	
Toluene	50	nd	119%	121%	2%	nd	106%
trans-1,3-Dichloropropene	50	nd				nd	
1,1,2-Trichloroethane	50	nd	1			nd	
Tetrachloroethene	50	nd				nd	
1,3-Dichloropropane	50	nđ				· nd	
Dibromochloromethane	20	nd				. nd	,
1,2-Dibromoethane (EDB)*	5	nd				nd	
Chlorobenzene	50	nd	102%	105%	3%	nd	94%
1,1,1,2-Tetrachloroethane	50	nd				nd	
Ethylbenzene	50	nd				nd	
Xylenes	50	nd	}			, nd	
Styrene	50	∙nd				nd	.I.
Bromoform	50	nd	$\Psi$			nd	$\checkmark$

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# Advanced Analytical Laboratory (425) 497-0110, fax (425) 497-8089

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

Analytical Results			MSD	MSD	RPD		
8260B, µg/kg		MTH BLK	SP20-S3	SP20-S3	SP20-S3	MTH BLK	LCS
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/09/06	06/09/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/09/06	06/09/06
lsopropylbenzene	50	nd	Ľ٦			nd	WT
1,2,3-Trichloropropane	50	nd	Ĩ			nd	F
Bromobenzene	50	nd				nd	
1,1,2,2-Tetrachloroethane	. 50	nd	)			nd	
n-Propylbenzene	50	лd	1			nď	
2-Chlorotoluene	50	nd	1			nd	
4-Chlorotoluene	50	nd ·				nd	
1,3,5-Trimethylbenzene	50	nd	į			nd	
tert-Butylbenzene	50	nd				nd	
1,2,4-Trimethylbenzene	50	nd	ļ			. nd	
sec-Butylbenzene	50	nd	1			nd	
1,3-Dichlorobenzene	50	nd				nd	
Isopropyltoluene	50	nd				nd	
1,4-Dichlorobenzene	50	nd				nd	
1,2-Dichlorobenzene	50	'nd				nd	•
n-Butylbenzene	50	nd				nd	
1,2-Dibromo-3-Chloropropane	50	nd				nd	
1,2,4-Trichlorobenzene	50	nd				nd	•
Hexachloro-1,3-butadiene	. 50	· nd				· nd	
Naphthalene	50	nd				nd	
1,2,3-Trichlorobenzene	50	nd	J.			· nd	Ju -
*-instrument detection limits					_		
Surrogate recoveries	-						
Dibromofluoromethane		91%	83%	74%		92%	94%
Toluene-d8		120%	101%	101%		107%	109%
1,2-Dichloroethane-d4		75%	94%	96%		87%	92%
4-Bromofluorobenzene		119%	124%	130%		111%	108%

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits Acceptable Recovery limits: 70% TO 130% Acceptable RPD limit: 30%

A 0/20/04

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

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8260B, µg/kg		MTH BLK	SP14-S3	SP15-S3	SP19-S3	
Matrix	Soil	Soil	Soil	Soil	Soil	
Date extracted	Reporting	06/07/06	06/09/06	06/09/06	06/09/06	
Date analyzed	Limits	06/07/06	06/09/06	06/09/06	06/09/06	
Dichlorodifluoromethane	50	nd	い M nd	k√ nd	ur nd u	灯
Chloromethane	50	nd	l nd	l nd	l nd	٢
Vinyl chloride	50	nd	лď	nd	nd	
Bromomethane	50	nd	nd	nd	nd	
Chloroethane	50	лd	nd	nd	nd	
Trichlorofluoromethane	<b>50</b> ·	nd	nd I	nd	л	
1,1-Dichloroethene	50	nd	l nd	nd	nd	
Methylene chloride	20	nd	nd	nd	nd	Į
trans-1,2-Dichloroethene	50	nd	nd	лd	nd	
1,1-Dichloroethane	50	nd	nd	nd	nd	ľ
2,2-Dichloropropane	50	nd	nd	nd	nd	
cis-1,2-Dichloroethene	50	nd	nd	nd	nd	
Chloroform	. 50	nd	nd	nd	nď	
1,1,1-Trichloroethane	50	nd	nd	nd	nď	
Carbontetrachloride	50	nď	nd	nd	nd	
1,1-Dichloropropene	50	nd	nd	nd	nd	- }
Benzene	50	nd	nd	nd	nd	
1,2-Dichloroethane(EDC)	20	nd	nd	nd	nd	
Trichloroethene	20	nd	nď	nd	nd	
1,2-Dichloropropane	50	nd	nd	лd	nd	
Dibromomethane	50	nd	nd	nd	nd	
Bromodichloromethane	50	nd	nd	nd	nd	
cis-1,3-Dichloropropene	50	nd	nd	nd	nd	
Toluene	50	nd	nd	nd	nd	
trans-1,3-Dichloropropene	50	nd	nd	nd	nd	
1,1,2-Trichloroethane	50	nd	nd	nd	nd	
Tetrachloroethene	50	nd	nd	nd	nd	
1,3-Dichloropropane	50	nđ	nd	nd	nd	
Dibromochloromethane	20	nd	nd	nd	nd	
1,2-Dibromoethane (EDB)*	5	nd	nd	nd	nd	
Chlorobenzene	50	nd	nd	nd	nd	
1,1,1,2-Tetrachloroethane	50	nd	nd	nd	nd	
Ethylbenzene	50	nd	nd	nd	nd	
Xylenes	50	nd	nd	nd	nd	
Styrene	50	nd	nd	nd	. nd	
Bromoform	50	лd	J nd	1 nd	J nd	$\langle  $

A) 6/28/04

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

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8260B, µg/kg		MTH BLK	SP14-S3	SP15-S3	SP19-S3
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/07/06	06/09/06	06/09/06	06/09/06
Date analyzed	Limits	06/07/06	06/09/06	06/09/06	06/09/06
			-		
lsopropylbenzene	50	nd U	بر آ nd	VI nd	WJ nd
1,2,3-Trichloropropane	50	nd	í nd	nd	Υ nd
Bromobenzene	· 50	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	50	nd	nd	nd	nd l
n-Propylbenzene	50	nd	лd	nd	nd
2-Chlorotoluene	50	nd	nď	nd	nd
4-Chlorotoluene	50	nd	nd	ndy	nd
1,3,5-Trimethylbenzene	50	nd	nđ	nd	nď
tert-Butylbenzene	50	nd	nd	nd	nd
1,2,4-Trimethylbenzene	50	nd	nd nd		nd
sec-Butylbenzene	50	nď	nd	nd	nd
1,3-Dichlorobenzene	50	nd	nd	nd	nd
Isopropyltoluene	50	nd	nd	nd	nd
1,4-Dichlorobenzene	50	nd	nd	nd	nd
1,2-Dichlorobenzene	50	nd	nd	nd	nd
n-Butylbenzene	50	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	50	nd	nd	nď	nd
1,2,4-Trichlorobenzene	50	nd	nd	nd	nd
Hexachloro-1,3-butadiene	50	nd	nd	nd	nd
Naphthalene	50	nd	лd	nd	nd
1,2,3-Trichlorobenzene	50	nd V	/ nd	√ nd	v nd
*-instrument detection limits			-		
Surrogate recoveries					
Dibromofluoromethane		91%	. 80%	76%	75%
Toluene-d8		120%	111%	101%	95%
1,2-Dichloroethane-d4		75%	82%	101%	110%
4-Bromofluorobenzene		119%	112%	122%	127%

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits Acceptable Recovery limits: 70% TO 130% Acceptable RPD limit: 30%

A) 6/25/06

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

Metals (7010/7471), mg/kg		MTH BLK	LCS	SP1-S3	SP2-S3	SP4-S4	SP5B-S3
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06
Date analyzed	Limits	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06
Lead (Pb)	1.0	nd	112%	4.0	6.9	9.5	4.2
Chromium (Cr)	2.0	nd	85%	40	47	42	86
Cadmium (Cd)	1.0	. nd	106%	nd	nd	nd	nd
Arsenic (As)	2.0	nd	90%	6.1	2.3	4.1	2.4
Mercury (Hg) (7471)	0.5	nd	90%	nd	nd	nd	nd
Copper (Cu)	1.0	nd	79%	17	29	18	24
Nickel (Ni)	1.0	nd	84%	18	36	20	35
Zinc (Zn)	0.5	nď	120%	1.5	3.8	12	2.6

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 70% TO 130%

Acceptable RPD limit: 30%

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

Metals (7010/7471), mg/kg		MTH BLK	SP6-S2	SP8-S2	SP8-S4	SP9-S2	SP9-S3
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06
Date analyzed	Limits	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06
							-
Lead (Pb)	1.0	nd	7.1	4.6	4.0	3.1	1.6
Chromium (Cr)	2.0	nd	68	110	· 64	44	30
Cadmium (Cd)	1.0	nd	nd	nd	nď	nd	nd
Arsenic (As)	2.0	nd	2.0	4.2	2.6	2.4	12
Mercury (Hg) (7471)	0.5	nd	nđ	nd	nd	nd	nd
Copper (Cu)	1.0	nd	18	31	26	10	80
Nickel (Ni)	1.0	nd	26	43	33	20	33
Zinc (Zn)	0.5	nd	1.2	5.1	2.9	2.2	1.9

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits

na - not analyzed

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 70% TO 130% Acceptable RPD limit: 30%

Page 2 of 6

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

Metais (7010/7471), mg/kg		MTH BLK	SP10-S4	SP11-S3	SP12-S5	SP13-S4
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06
Date analyzed	Limits	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06
	•				,	
Lead (Pb)	1.0	nd	2.8	2.3	3.1	4.9
Chromium (Cr)	2.0	nd	39	43	55	72
Cadmium (Cd)	1.0	nd	nd	nd	nd	' nd
Arsenic (As)	2.0	. nd	2.2	nd	nd	3.5
Mercury (Hg) (7471)	· 0.5	nd	nd	nd	nd	nd
Copper (Cu)	1.0	nď	16	13	23	30
Nickel (Ni)	1.0	nd	21	22	25	35
Zinc (Zn)	0.5	. nd	1.2	<sup>.</sup> 1.8	0.6	3.5

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits na - not analyzed J - estimated value

Results reported on dry-weight basis Acceptable Recovery limits: 70% TO 130% Acceptable RPD limit: 30%

I.

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

#### Analytical Results

Metals (7010/7471), mg/kg		MTH BLK	SP16B-S2	SP16B-S4	SP17-S3	SP18-S2
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06
Date analyzed	Limits	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06
Lead (Pb)	1.0	nd	<b>7.9</b> <sup>°</sup>	4.6	8.6	8.1
Chromium (Cr)	2.0	nd	77	69	140	170
Cadmium (Cd)	1.0	nd	nd	nd	nd	nd
Arsenic (As)	2.0	nd	3.2	2.4	4.3	4.4
Mercury (Hg) (7471)	0.5	nd	nd	nd	nd	nď
Copper (Cu)	1.0	nd	38	47	51	33
Nickel (Ni)	1.0	nd	36	31	66	43
Zinc (Zn)	0.5	nd	4.5	2.4	3.9	4.4

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits

na - not analyzed

i -

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 70% TO 130%

Acceptable RPD limit: 30%

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

Metals (7010/7471), mg/kg		MTH BLK	SP18-S4	SP20-S1	SP20-S3	SP14-S3	SP19-S3
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06
Date analyzed	Limits	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06	06/09/06
Lead (Pb)	1.0	nd	<sup>-</sup> 3.8	3.4	7.0	1.0	1.8
Chromium (Cr)	2.0	nd	49	43	66	8.1	11
Cadmium (Cd)	1.0	nd	nd	nd	nd	nd	nd
Arsenic (As)	2.0	nd	2.4	2.0	2.3	nd	nd
Mercury (Hg) (7471)	0.5	nd	nd	nd	nd	nď	, nd
Copper (Cu)	1.0	nd	18	20	36	4.1	12
Nickel (Ni)	1.0	nd	30	30	37	4.6	6.0
Zinc (Zn)	0.5	nd	nd	nd	3.9	8.6	12

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits na - not analyzed

J - estimated value

i.

Results reported on dry-weight basis

Acceptable Recovery limits: 70% TO 130%

Acceptable RPD limit: 30%

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06
Client Project Name: Client Project Number:	Dearborn/Herzog 17250

Analytical Results			Dupl	RPD
Metals (7010/7471), mg/kg		MTH BLK	SP19-S3	SP19-S3
Matrix	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/09/06	06/09/06	06/09/06
Date analyzed	Limits	06/09/06	06/09/06	06/09/06
Lead (Pb)	1.0	nd	1.9	6%
Chromium (Cr)	2.0 ·	nd	12	8%
Cadmium (Cd)	1.0	nd	nď	
Arsenic (As)	2.0	nd	nd	
Mercury (Hg) (7471)	0.5	nd	nd	
Copper (Cu)	1.0	nd	12	1%
Nickel (Ni)	1.0	nd	5.6	8%
Zinc (Zn)	0.5	nd	12	5%

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits na - not analyzed J - estimated value Results reported on dry-weight basis Acceptable Recovery limits: 70% TO 130%

Acceptable RPD limit: 30%

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AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

Analytical Results						•	Dupl
NWTPH-Gx		MTH BLK	SP-5B	SP-8	SP-10	SP-15	SP-15
Matrix	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
· ·							
NWTPH-Gx, mg/L							
Mineral spirits/Stoddard	0.10	nd	์ nd	nd	nd	nd	nd
Gasoline	0.10	nd	nd	nd	nd	nd	nd
Surrogate recoveries:			- -				
Trifluorotoluene	· ·	79%	78%	76%	76%	81%	79%
Bromofluorobenzene		85%	88%	88%	82% ·	87%	88%
· · · ·							

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed 🕠

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C - coelution with sample peaks

M - matrix interference

J - estimated value

Acceptable Recovery limits: 70% TO 130%

Acceptable RPD limit: 30%

Page 1 of 1

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager: ,	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

Analytical Results							Dupl
NWTPH-Dx, mg/l		MTH BLK	SP-5B	SP-8	SP-10	SP-15	SP-15
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Date analyzed	Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Kerosene/Jet fuel	0.20	nd	nd	nd	nd	nd	nd
Diesel/Fuel oil	0.20	nd	nd	nd	nd	nd	nd
Heavy oil	0.50	nd	nd	nd	nd	nd	nd
Surrogate recoveries:							
Fluorobiphenyl		115%	129%	130%	128%	129%	128%
o-Terphenyl		118%	121%	122%	115%	113%	119%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Acceptable Recovery limits: 70% TO 130% Acceptable RPD limit: 30%

A60607-1
Hart Crowser, Inc.
Julie Wukelic
Dearborn/Herzog
17250
06/07/06

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8260B, μg/L		MTH BLK	LCS	SP-5B	SP-8	SP-10	SP-15
Matrix	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Dichlorodifluoromethane	1.0	nd		nd	nd	nd	nd
Chloromethane	1.0	nd		nd	nd	nd	nd
Vinyl chloride(*)	0.2	nd		nd	nd	nd	nd
Bromomethane	1.0	nď		nd	nd	nd	nd
Chloroethane	1.0	nď		nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd		nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd		nd	nd	7.1	· nd
Methylene chloride	1.0	nd		nd	лd	nd	nd
trans-1,2-Dichloroethene	1.0	nď		nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd		4.2	` nd	2.7	nd
2,2-Dichloropropane	1.0	nď		nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd		nd	nđ	nd	nd
Chloroform	1.0	nd		nd	nd	nd ·	nd
1,1,1-Trichloroethane	1.0	nd		nd	nd	7.6	nd
Carbontetrachloride	1.0	nd		nd	nd	7.5	nd
1,1-Dichloropropene	1.0	nd		nd	nd	nd	nd
Benzene	1.0	nd	88%	nď	nd	nd	nd
1,2-Dichloroethane(EDC)	1.0	nd		nd	nd	nd	nd
Trichloroethene	1.0	nd	87%	nd	nð	nd	nď
1,2-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromomethane	1.0	nd		nd	nd	nd	nd
Bromodichloromethane	1.0	nd		nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd		nđ	nď	nd	nd
Toluene	1.0	nd	120%	1.0	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd		nd	nd	nd	nd
Tetrachloroethene	1.0	nd		nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromochloromethane	1.0	nd		nd ·	nd	nd	nd
1,2-Dibromoethane (EDB)*	Ó.O1	nd		nd	nd	nd	nd
Chlorobenzene	1.0	nd	94%	· nd	лd	nd.	nd
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd
Ethylbenzene	1.0	nd		nd	nd	nd	nd
Xylenes	1.0	nd		nd	nd	nd	nd
Styrene	1.0	nd		nd	nd	nd	nd
Bromoform	1.0	nd	•	nd	່ nd	nd	nd
Isopropylbenzene	1.0	nd		nd	nd	√ nd	nd
1,2,3-Trichloropropane	1.0	nd		nd	nd	nd	nd

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	· 17250
Date received:	06/07/06

8260B, μg/L	,	MTH BLK	LCS	SP-5B	SP-8	SP-10	SP-15
Matrix	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06	06/07/06
Bromobenzene	1.0	nd		nd	nd	nd	nd
1.1.2.2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd
n-Propylbenzene	1.0	nd		nd	nd	nd	nd
2-Chlorotoluene	1.0	nd		nď	nd	nd	nd
4-Chlorotoluene	1.0	nd		nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd	•	nd	nd	nd	nd
tert-Butylbenzene	1.0	nď	· .	nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd		nd	nd.	nd	nd
sec-Butylbenzene	1.0	nd		nđ	'nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	лd	nd
Isopropyltoluene	1.0	nd		nd	nd	nd	' nd
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	· nd	· nd	nd
n-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd		nd	nd	nđ	nd
1,2,4-Trichlorobenzene	1.0	nd		. nd	nd	nd	nd
Hexachloro-1,3-butadiene	<b>1.0</b>	nd		nd	nd	nd	nd
Naphthalene	1.0	nd		nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
*-instrument detection limits					•		
Surrogate recoveries						•	
Dibromofluoromethane		91%	84%	71%	81%	71%	79%
Toluene-d8		120%	113%	110%	109%	102%	94%
1,2-Dichloroethane-d4		75%	80%	96%	96%	99%	109%
4-Bromofluorobenzene		119%	117%	124%	125%	128%	128%

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits Acceptable Recovery limits: 70% TO 130% Acceptable RPD limit: 30%

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A60607-1
Hart Crowser, Inc.
Julie Wukelic
Dearborn/Herzog
17250
06/07/06

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nalytical Results				MSD	RPD
8260B, µg/L		SP-15	SP-8	SP-8	SP-8
Matrix	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	06/07/06	06/07/06	06/07/06	06/07/06
Disklass diffusion athene	10				
Dichlorodifluoromethane	1.0	nd			
Chloromethane	1.0	nd			
Vinyl chloride(*)	0.2	nd			
Bromomethane	1.0	nd			
Chloroethane	1.0	nd			
Trichlorofluoromethane	1.0	nd			
1,1-Dichloroethene	1.0	nd			
Methylene chloride	1.0	nd			
trans-1,2-Dichloroethene	1.0	nd	1		
1,1-Dichloroethane	1.0	nd			
2,2-Dichloropropane	1.0	i nd			
cis-1,2-Dichloroethene	1.0	nd			
Chloroform	1.0	nd			
1,1,1-Trichloroethane	1.0	nd			
Carbontetrachloride	1.0	· nd			
1,1-Dichloropropene	1.0	nd			
Benzene	1.0	nd	89%	90%	1%
1,2-Dichloroethane(EDC)	1.0	nd			
Trichloroethene	1.0	nd	96%	108%	11%
1,2-Dichloropropane	1.0	์ nd			
Dibromomethane	1.0	nd			
Bromodichloromethane	1.0	nd			
cis-1,3-Dichloropropene	· 1.0	· nd			
Toluene	1.0	nd	125%	129%	3%
trans-1,3-Dichloropropene	1.0	nd		•	
1,1,2-Trichloroethane	1.0	nd			
Tetrachloroethene	1.0	nd			-
1,3-Dichloropropane	1.0	nd			
Dibromochloromethane	1.0	nd			
1,2-Dibromoethane (EDB)*	0.01	nd			
Chlorobenzene	1.0	nd	102%	105%	3%
1,1,1,2-Tetrachloroethane	1.0	nd			
Ethylbenzene	1.0	nd			
Xylenes	1.0	nd			
Styrene	1.0	nd			
Bromoform	1.0	nd			
Isopropylbenzene	1.0	nd			
1,2,3-Trichloropropane	1.0	nd			

AAL Job Number:	A60607-1
Client:	Hart Crowser
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/He
Client Project Number:	17250
Date received:	06/07/06

A00007-1	
Hart Crowser, Inc.	
Julie Wukelic	
Dearborn/Herzog	
17250	
06/07/06	

Analytical Results		Dupl	MS	MSD	RPD
8260B, μg/L		SP-15	SP-8	SP-8	SP-8
Matrix	Water .	Water	Water	Water	Water
Date analyzed	Reporting Limits	06/07/06	06/07/06	06/07/06	06/07/06
Bromobenzene	1.0	nd			
	1.0			×	
1,1,2,2-Tetrachloroethane	1.0	nd			
n-Propylbenzene		nd			
2-Chlorotoluene	1.0	nd		× *	
4-Chlorotoluene	1.0	nd			
1,3,5-Trimethylbenzene	1.0	nd			
tert-Butylbenzene	. 1.0	nd			
1,2,4-Trimethylbenzene	1.0	nd			
sec-Butylbenzene	1.0	nd			•
1,3-Dichlorobenzene	1.0	nd			
Isopropyitoluene	1.0	nd			
1,4-Dichlorobenzene	1.0	nd			
1,2-Dichlorobenzene	1.0	nd			
n-Butylbenzene	1.0	nd			
1,2-Dibromo-3-Chloropropane	1.0 、	nd			•
1,2,4-Trichlorobenzene	1.0	nd			
Hexachloro-1,3-butadiene	1.0	nd			
Naphthalene	1.0	nd			
1,2,3-Trichlorobenzene	1.0	nď			
*-instrument detection limits					1
Surrogate recoveries					
Dibromofluoromethane		83%	89%	84%	
Toluene-d8		108%	108%	108%	
1,2-Dichloroethane-d4		102%	92%	94%	
4-Bromofluorobenzene		、 119%	119%	123%	

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits Acceptable Recovery limits: 70% TO 130% Acceptable RPD limit: 30%

AAL Job Number:	A60607-1
Client:	Hart Crowser, Inc.
Project Manager:	Julie Wukelic
Client Project Name:	Dearborn/Herzog
Client Project Number:	17250
Date received:	06/07/06

Metals Total (7010/7470A), mg/l		MTH BLK	LCS	SP-5B	SP-8	SP-10	
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	06/16/06	06/16/06	06/16/06	06/16/06	06/16/06	06/16/06
Date analyzed	Limits	06/16/06	06/16/06	06/16/06	06/16/06	06/16/06	06/16/06
Lead (Pb)	0.002	, nd	110%	nd	nd	nd	nd
Chromium (Cr)	0.01	nd	98%	nd	nd	nd	nd
Cadmium (Cd)	0.005	· nd	118%	nd	nd	nd	nd
Arsenic (As)	0.005	nd	105%	nd	nd	nd	nd
Mercury (Hg) (7470A)	0.001	nd	90%	nd	nd	nd	nd
Copper (Cu)	0.01	nd	104%	nd	nd	nd	nd
Nickel (Ni)	0.01	nd	83%	0.015	nd	0.022	0.053
Zinc (Zn)	0.001	nd	104%	0.003	0.001	0.002	0.002

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits

na - not analyzed

J - estimated value Acceptable Recovery limits: 70% TO 130%

Acceptable RPD limit: 30%