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8 January 1999

Mr. Russell D. Hart (HSRW-6J)  
Remedial Project Manager  
U. S. Environmental Protection Agency  
Region V  
77 West Jackson Boulevard  
Chicago, IL 60604

Work Order No. 02687-007-003

Re: Quarterly Groundwater Monitoring Report, 3rd Quarter  
Moss-American Site, Milwaukee, Wisconsin

Dear Mr. Hart:

On behalf of the Kerr-McGee Chemical LLC (KMC), Roy F. Weston, Inc. (WESTON®) is submitting this report summarizing the results of the third quarterly groundwater monitoring event completed at the above referenced project in September 1998. A description of the groundwater monitoring program and the results obtained during this monitoring period are presented in the following sections

The groundwater analytical results reported for 3rd quarter 1998 reflect conditions at the site after the free-product recovery system was on for approximately five months.

## 1.0 BACKGROUND

In accordance with paragraph 4a of the Remedial Design and Remedial Action Statement of Work (RD/RA SOW), KMC is required to implement a groundwater monitoring program capable of detecting changes in chemical concentrations in the groundwater. As previously agreed, the monitoring network includes 23 groundwater monitoring wells—MW-3S, MW-3I, MW-4S, MW-4I, MW-5S, MW-6S, MW-7S, MW-7I, MW-8S, MW-8I, MW-9S, MW-9I, MW-10S, MW-13S, MW-20S, MW-20I, MW-25S, MW-26S, MW-27S, MW-28S, MW-29S, TW-05, and TW-09.

In accordance with paragraph 4a (i) of the RD/RA SOW, the field measurement and analysis of groundwater samples includes groundwater elevation, pH, temperature, turbidity, specific conductance, redox potential, dissolved oxygen. Laboratory analyses include BTEX compounds (benzene, toluene, ethylbenzene, and xylene) and polynuclear aromatic hydrocarbon (PAH) compounds (acenaphthylene, acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)-anthracene, fluorene, fluoranthene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene).



## 2.0 GROUNDWATER MONITORING RESULTS

The third quarterly groundwater monitoring event at the Moss-American site was completed between 28 September and 1 October 1998. Tasks completed during the field effort for this event included the collection of groundwater elevation data from all the shallow and five of the six intermediate monitoring wells and the collection of groundwater samples from 16 of the 17 shallow monitoring wells and five of the six intermediate wells. Groundwater sample was not collected from well MW-8S because this well had approximately 1.5 feet of free-product. Therefore, as with any well observed to contain free-product, MW-8S is assumed to be contaminated. The results of these efforts are described in the following subsections.

### 2.1 GROUNDWATER ELEVATION MEASUREMENTS

The depth to water was measured in each of the monitoring wells mentioned in Section 1.0 of this report. The measurements were conducted on 28 September 1998, prior to the beginning of groundwater sampling. These measurements were used to determine the elevation of the potentiometric surface of the shallow groundwater-bearing zone underlying the site. The water level measurements and resulting elevations are presented in Table 1. Figure 1 presents a groundwater elevation contour map that shows the potentiometric surface of the shallow groundwater-bearing zone. An evaluation of these results is presented in the following paragraphs.

As Figure 1 shows, the groundwater within the shallow groundwater-bearing zone generally flows northeastward toward the Little Menomonee River. In the topographically higher, western portion of the site, the horizontal hydraulic gradient of the potentiometric surface is relatively steep at approximately 0.021 feet per foot (ft/ft). The gradient flattens near the river, as does the ground surface, with an average of approximately 0.012 ft/ft.

The average velocity of groundwater flow within the shallow water-bearing zone can be calculated using the hydraulic gradients presented above, the average hydraulic conductivity used for the shallow water-bearing zone (1.2 feet per day [ft/day]), and the assumed effective porosity of 30 percent. In the western portion of the site the groundwater flow velocity is calculated to be approximately 0.08 ft/day. Near the river, the velocity of groundwater flow is calculated to be approximately 0.048 ft/day.

### 2.2 GROUNDWATER SAMPLE ANALYSES RESULTS

Groundwater samples were collected from 16 shallow monitoring wells (MW-3S, MW-4S, MW-5S, MW-6S, MW-7S, MW-9S, MW-10S, MW-13S, MW-20S, MW-25S, MW-26S, MW-27S,

Mr. Russell D. Hart  
U.S. EPA

-3-

8 January 1999

MW-28S, MW-29S, TW-05, and TW-09) screened within the shallow groundwater-bearing zone. Groundwater samples were also collected from five of the six intermediate monitoring wells (MW-3I, MW-4I, MW-8I, MW-9I, and MW-20I). In addition, for quality assurance/quality control (QA/QC) purposes, two sample duplicates (indicated by a D qualifier), one matrix spike/matrix spike duplicate (MS/MSD), and two field blanks were collected. Trip blanks accompanied each cooler of sample bottles from the laboratory to the site and were shipped back to the laboratory within each cooler full of samples.

Each groundwater sample was measured for the field parameters discussed in Section 1 and analyzed for BTEX and PAH compounds. The results of these measurements and analyses are discussed in the following subsections.

#### 2.2.1 Field-Measured Parameters

The groundwater samples were measured in the field for pH, specific conductance, temperature, redox potential, dissolved oxygen, and turbidity. The results of these measurements are provided in Table 2. As shown in Table 2, the groundwater pH ranged from 6.61 to 8.79 standard pH units (S.U.) in the shallow groundwater samples. The specific conductivity ranges from 0.02 to 1.44 m $\Omega$ /cm in the shallow groundwater samples. Groundwater temperatures ranged from 12.4 to 17.6 °C in the shallow groundwater samples and 11.1 to 13.5° C in intermediate monitoring wells. The redox potentials of the groundwater ranged from a negative 55 to a 225 millivolts (mV) in shallow groundwater samples and 40 mV to 194 mV in intermediate groundwater samples. Dissolved oxygen levels ranged from 1.1 to 6.0 mg/L. Turbidity ranged from 132 to 1,244 nephelometric turbidity units (NTU) in the shallow groundwater samples and 0.28 to 8.98 NTU.

#### 2.2.2 Laboratory Analyses

Each groundwater sample collected during the third quarter 1998 monitoring period was analyzed for BTEX and PAH compounds. The results of these analyses are presented in Table 3. Table 3 also indicates those parameters that were detected at concentrations that exceed their respective PALs. These results are summarized in the following paragraphs. The laboratory reports are presented in Attachment A.

#### Groundwater Sample Results

As Table 3 shows, primarily benzene, naphthalene, fluorene, and benzo(a)pyrene were detected at concentrations that exceed their respective PALs in the groundwater samples collected from shallow wells. They are as follows:



Mr. Russell D. Hart  
U.S. EPA

-4-

8 January 1999

- Benzene was detected at concentrations exceeding the WDNR PAL of 0.5  $\mu\text{g/L}$  in groundwater samples collected from monitoring wells MW-4S, MW-7S, and FD-01 (field duplicate of MW-7S).
- Naphthalene was detected at concentrations exceeding the WDNR PAL of 8  $\mu\text{g/L}$  in groundwater samples collected from monitoring wells MW-4S, MW-7S, TW-05, TW-09, and FD-01 (field duplicate of MW-7S).
- Fluorene was detected at concentrations exceeding WDNR PAL of 80  $\mu\text{g/L}$  in groundwater sample collected from MW-4S and TW-05.
- Benzo(a)pyrene was detected at concentrations exceeding the WDNR PAL of 0.02  $\mu\text{g/L}$  in groundwater samples collected from monitoring wells MW-4S, TW-05 and TW-09.

These results show that the width of the contaminant plume boundaries (shown in Figure 1) has decreased in the middle portion of the plume since groundwater samples collected from wells MW-27S, MW-28S and MW-29S indicate non-detectable levels of VOCs and PAH compounds when compared with the second quarter groundwater sampling event.

If you have any questions or require additional information, please do not hesitate to call me at (847) 918-4142.

Very truly yours,

ROY F. WESTON, INC.

Thomas P. Graan, Ph.D.  
Principal Project Manager

TPG/slr  
Attachments

cc: G. Edelstein, WDNR  
B. Felix, WDNR

Table 1

Groundwater Elevation Measurements  
Third Quarter 1998  
Moss-American Site  
Milwaukee, Wisconsin

Well	Ground Elevation (ft. MSL)	TOC Elevation (ft. MSL)	Depth to Water (ft.)	Groundwater Elevation (ft. MSL)	Product Thickness (ft.)
MW-3S	729.00	731.50	7.93	723.57	ND
MW-4S	731.00	732.86	5.52	727.34	ND
MW-5S	723.00	724.70	5.84	718.86	ND
MW-6S	727.00	724.28	7.51	716.77	ND
MW-7S	720.00	721.70	7.57	714.13	ND
MW-8S	718.00	721.73	7.34	714.39	1.5
MW-9S	720.00	721.71	10.65	711.06	ND
MW-10S	723.00	726.58	11.81	714.77	ND
MW-13S	737.00	738.68	5.19	733.49	ND
MW-20S	716.00	719.94	6.64	713.30	ND
MW-25S	736.83	739.24	5.24	734.00	ND
MW-26S	732.31	731.66	5.33	726.33	ND
MW-27S	720.59	723.15	5.24	717.91	ND
MW-28S	720.04	722.65	4.28	718.37	ND
MW-29S	720.01	722.39	5.98	716.67	ND
TW-05	721.76	724.16	5.45	718.71	0
TW-09	717.61	719.96	5.98	713.98	trace

NM - Not measured.

ND - Not detected.

**Table 2**

**Field-Measured Parameters  
Third Quarter 1998  
Moss-American Site  
Kerr-McGee Corporation**

<b>Well Number</b>	<b>PH (Standard Units)</b>	<b>Specific Conductance (mΩ/cm)</b>	<b>Temperature (°C)</b>	<b>Redox Potential (mV)</b>	<b>Dissolved Oxygen (mg/L)</b>	<b>Turbidity (NTU)</b>
MW-3S	7.20	1.11	14.7	132	5.8	1,151
MW-3I	8.79	0.22	11.4	193	4.6	898
MW-4S	7.70	0.44	15.5	-44	3.2	224
MW-4I	8.12	0.01	11.2	60	2.7	473
MW-5S	7.15	1.03	12.4	152	6	1,244
MW-6S	7.65	0.38	13.9	160	5.0	417
MW-7S	6.61	1.22	12.5	-43	2.2	1,096
MW-7I	NM	NM	NM	NM	NM	NM
MW-8S	NM	NM	NM	NM	NM	NM
MW-8I	8.21	0.15	13.5	145	5.0	252
MW-9S	6.87	0.02	12.9	14	2.4	200
MW-9I	8.16	0.22	11.1	194	5.5	551
MW-13S	7.17	0.57	17.6	192	3.2	1,025
MW-20S	7.19	1.44	15.3	-73	6.0	2.03
MW-20I	8.62	0.30	11.2	40	2.0	0.28
MW-25S	7.09	0.52	16.4	225	3.8	845
MW-26S	7.22	0.46	16.1	166	2.0	178
MW-27S	7.30	0.54	14.4	-35	2.6	929
MW-28S	7.60	0.33	13.3	145	2.6	590
MW-29S	7.81	0.42	12.6	68	2.4	132
TW-05	7.24	0.42	14.8	-55	1.1	728
TW-09	NM	NM	NM	NM	NM	NM

NM - Not measured.

Table 3

**Groundwater Sample Analytical Results**  
**Third Quarter 1998**  
**Moss-American Site**  
**Milwaukee, Wisconsin**

Sample ID:	MW-3S-03		MW-3I-03		MW-4S-03		MW-4I-03		MW-5S-03		MW-6S-03		MW-7S-03		MW-8I-03		WDNR PAL ug/L	
Sample Matrix:	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater			
Sample Date:	9/29/98		9/29/98		9/29/98		9/30/98		9/29/98		9/30/98		9/29/98		9/30/98			
Units of Measure:	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L			
<b>Parameters</b>																		
<b>VOCs</b>																		
Benzene	0.2	U	0.2	U	3		0.2	U	0.2	U	0.2	U	8	J	0.2	U	0.5	
Toluene	0.2	U	0.2	U	4		0.2	U	0.2	U	0.2	U	2	U	1.0	U	68.6	
Ethylbenzene	0.2	U	0.2	U	6		0.2	U	0.2	U	0.2	U	20		1.0	U	140	
Total Xylenes	0.6	U	0.6	U	14		0.6	U	0.6	U	0.6	U	70		3.0	U	124	
<b>PAHs</b>																		
Naphthalene	0.81	J	0.77	U	863	J	0.76	U	0.77	U	0.76	U	7,140		0.76	U	8.0	
Acenaphthylene	0.77	U	0.77	U	53	J	0.76	U	0.77	U	0.76	U	260		0.76	U	NA	
Acenaphthene	0.77	U	0.77	U	680	J	0.76	U	0.77	U	0.76	U	200		0.76	U	NA	
Fluorene	0.16	U	0.16	U	323	J	0.16	U	0.16	U	0.29	J	30		0.26	J	80	
Phenanthrene	0.044	U	0.044	U	18.7	J	0.060	J	0.044	U	0.44		0.88	U	0.55	U	NA	
Anthracene	0.030	U	0.030	U	35.0	J	0.030	U	0.030	U	0.031	J	0.59	U	0.037	J	NA	
Fluoranthene	0.023	J	0.019	U	134	J	0.024	J	0.019	U	0.019	U	0.38	U	0.120	J	NA	
Pyrene	0.17	U	0.17	U	141	J	0.44	J	0.17	U	0.32	J	3.5	U	0.17	U	NA	
Benzo(a)anthracene	0.017	U	0.017	U	18.7	J	0.017	U	0.017	U	0.017	U	0.35	U	0.017	U	NA	
Chrysene	0.057	U	0.158	J	17.3	J	0.068	J	0.107	J	0.104	J	1.1	U	0.056	U	NA	
Benzo(b)fluoranthene	0.034	U	0.034	U	5.94	J	0.033	U	0.033	U	0.033	U	0.67	U	0.033	U	NA	
Benzo(k)fluoranthene	0.026	U	0.026	U	3.36	J	0.026	U	0.026	U	0.026	U	0.52	U	0.026	U	NA	
Benzo(a)pyrene	0.021	U	0.021	U	7.45	J	0.021	U	0.021	U	0.021	U	0.42	U	0.021	U	0.02	
Dibenzo(a,h)pyrene	0.045	U	0.045	U	1.0	J	0.045	U	0.045	U	0.045	U	0.90	U	0.045	U	NA	
Benzo(g,h,i)perylene	0.095	U	0.095	U	0.47	UJ	0.095	U	0.095	U	0.095	U	1.9	U	0.095	U	NA	
Indeno(1,2,3-cd)pyren	0.061	U	0.062	U	3.2	J	0.061	U	0.061	U	0.061	U	1.2	U	0.061	U	NA	

VOC - Volatile Organic Compound.

PAH - Polynuclear Aromatic Hydrocarbon.

PAL - Wisconsin Department of Natural Resources Preventative Action Limit.

NA - PAL not available for this parameter.

Table 3 (Cont.)

**Groundwater Sample Analytical Results  
Third Quarter 1998  
Moss-American Site  
Milwaukee, Wisconsin**

Sample ID:	MW-9S-03		MW-9I-03		MW-13S-03		MW-20S-03		MW-20I-03		MW-25S-03		MW-26S-03		WDNR PAL ug/L
Sample Matrix:	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		
Sample Date:	9/30/98		9/30/98		9/29/98		9/28/98		9/28/98		9/29/98		9/29/98		
Units of Measure:	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		
<b>Parameters</b>															
<b>VOCs</b>															
Benzene	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.5
Toluene	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	68.6
Ethylbenzene	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	140
Total Xylenes	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	124
<b>PAHs</b>															
Naphthalene	2.06	J	0.77	U	0.77	U	0.76	U	8.3	U	0.77	U	2.17	J	8.0
Acenaphthalene	0.76	U	0.77	U	0.77	U	0.76	U	8.3	U	0.77	U	0.77	U	NA
Acenaphthene	0.76	U	0.77	U	0.77	U	0.76	U	8.3	U	0.77	U	0.77	U	NA
Fluorene	0.16	U	0.16	U	0.16	U	0.16	U	1.8	U	0.16	U	0.16	U	80
Phenanthrene	0.044	U	0.044	U	0.044	U	0.044	U	0.48	U	0.044	U	0.044	U	NA
Anthracene	0.029	U	0.030	U	0.030	U	0.030	U	0.32	U	0.030	U	0.030	U	NA
Fluoranthene	0.019	U	0.019	U	0.028	J	0.019	U	0.23	J	0.019	U	0.019	U	NA
Pyrene	0.17	U	0.17	U	0.17	U	0.17	U	2.5	J	0.17	U	0.17	U	NA
Benzo(a)anthracene	0.017	U	0.017	U	0.017	U	0.017	U	0.19	U	0.017	U	0.017	U	NA
Chrysene	0.196	J	0.070	J	0.056	U	0.065	J	1.27	J	0.056	U	0.057	U	NA
Benzo(b)fluoranthene	0.033	U	0.034	U	0.033	U	0.033	U	0.36	U	0.033	U	0.034	U	NA
Benzo(k)fluoranthene	0.026	U	0.026	U	0.026	U	0.026	U	0.28	U	0.026	U	0.026	U	NA
Benzo(a)pyrene	0.021	U	0.021	U	0.021	U	0.021	U	0.23	U	0.021	U	0.021	U	0.02
Dibenzo(a,h)pyrene	0.045	U	0.045	U	0.045	U	0.045	U	0.49	U	0.045	U	0.045	U	NA
Benzo(g,h,i)perylene	0.094	U	0.095	U	0.095	U	0.095	U	1.0	U	0.095	U	0.095	U	NA
Indeno(1,2,3-cd)pyrene	0.061	U	0.062	U	0.061	U	0.061	U	0.88	J	0.061	U	0.062	U	NA

VOC - Volatile Organic Compound.

PAH - Polynuclear Aromatic Hydrocarbon.

PAL - Wisconsin Department of Natural Resources Preventative Action Limit.

NA - PAL not available for this parameter.



Table 3 (Cont.)

**Groundwater Sample Analytical Results**  
**Third Quarter 1998**  
**Moss-American Site**  
**Milwaukee, Wisconsin**

Sample ID:	MW-27S-03	MW-28S-03	MW-29S-03	TW-05-03	TW-09-03	FD-01-03	FD-02-03	FB-01-03	WDNR PAL ug/L								
Sample Matrix:	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater									
Sample Date:	10/1/98	9/30/98	9/30/98	9/29/98	9/29/98	10/1/98	9/29/98	9/28/98									
Units of Measure:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L									
<b>Parameters</b>																	
<b>VOCs</b>																	
Benzene	0.2	U	0.2	U	0.2	U	0.2	U	2	U	8	J	0.2	U	0.2	U	0.5
Toluene	0.2	U	0.2	U	1.0	U	0.2	U	3	J	2.0	U	0.2	U	0.2	U	68.6
Ethylbenzene	0.2	U	0.2	U	1.0	U	0.2	U	10		20		0.2	U	0.2	U	140
Total Xylenes	0.6	U	0.6	U	3.0	U	0.6	U	40		70		0.6	U	0.6	U	124
<b>PAHs</b>																	
Naphthalene	0.77	U	0.77	U	0.82	U	19.0	J	580	J	4,660	J	1.36	J	1.0	UJ	8.0
Acenaphthylene	0.77	U	0.77	U	0.82	U	21.0	J	540	J	178		0.76	U	1.0	UJ	NA
Acenaphthene	0.77	U	0.77	U	0.82	U	140	J	370	J	130		0.76	U	1.0	UJ	NA
Fluorene	0.16	U	0.16	U	0.17	U	90		3.3	UJ	20.7		0.16	U	0.21	UJ	80
Phenanthrene	0.077	J	0.044	U	0.053	J	5.59	J	0.88	UJ	0.044	U	0.044	U	0.056	UJ	NA
Anthracene	0.030	U	0.030	U	0.103	J	11.8		0.59	UJ	0.030	U	0.030	U	0.038	UJ	NA
Fluoranthene	0.020	J	0.019	U	0.65		59.7		0.38	UJ	0.033	J	0.019	U	0.025	UJ	NA
Pyrene	0.17	U	0.17	U	0.42	J	64		9.8	J	0.60	J	0.17	U	0.22	UJ	NA
Benzo(a)anthracene	0.017	U	0.017	U	0.071	J	12.8		6.6	J	0.017	U	0.017	U	0.022	UJ	NA
Chrysene	0.057	U	0.062	J	0.070	J	14.0		68.1	J	0.094	J	0.056	U	0.085	J	NA
Benzo(b)fluoranthene	0.034	U	0.034	U	0.036	U	4.5		24.3	J	0.034	U	0.033	U	0.043	UJ	NA
Benzo(k)fluoranthene	0.026	U	0.026	U	0.028	U	2.6		0.52	UJ	0.026	U	0.026	U	0.033	UJ	NA
Benzo(a)pyrene	0.021	U	0.021	U	0.022	U	3.4		4.4	J	0.021	U	0.021	U	0.027	UJ	0.02
Dibenzo(a,h)pyrene	0.045	U	0.045	U	0.048	U	0.91	U	0.90	UJ	0.045	U	0.045	U	0.058	UJ	NA
Benzo(g,h,i)perylene	0.095	U	0.095	U	0.10	U	1.9	U	1.9	UJ	0.095	U	0.094	U	0.12	UJ	NA
Indeno(1,2,3-cd)pyrene	0.063	J	0.061	U	0.065	U	2.7	J	1.2	UJ	0.062	U	0.061	U	0.079	UJ	NA

VOC - Volatile Organic Compound.

FD-01-03 is MW-7S-03

PAL - Wisconsin Department of Natural Resources Preventative Action Limit.

PAH - Polynuclear Aromatic Hydrocarbon.

FD-02-03 is MW-25S-03

NA - PAL not available for this parameter.

Table 3 (Cont.)

**Groundwater Sample Analytical Results  
Third Quarter 1998  
Moss-American Site  
Milwaukee, Wisconsin**

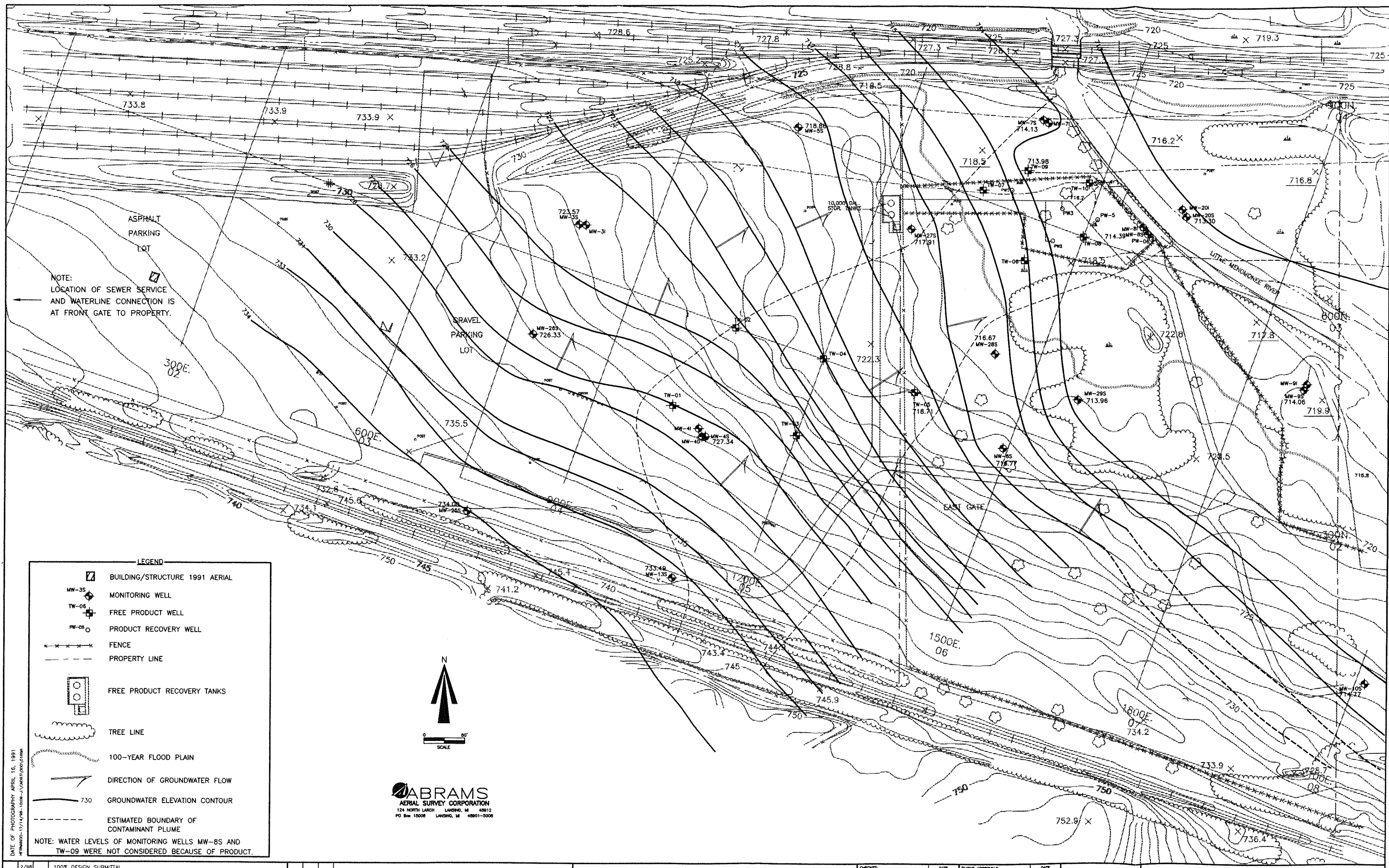
<b>Sample ID:</b>	<b>FB-02-03</b>		
<b>Sample Matrix:</b>	<b>Groundwater</b>		<b>WDNR PAL ug/L</b>
<b>Sample Date:</b>	<b>9/29/98</b>		
<b>Units of Measure:</b>	<b>ug/L</b>		
<b>Parameters</b>			
<b>VOCs</b>			
Benzene	0.2	U	0.5
Toluene	0.2	U	68.6
Ethylbenzene	0.2	U	140
Total Xylenes	0.6	U	124
<b>PAHs</b>			
Naphthalene	1.00	J	8.0
Acenaphthylene	0.85	U	NA
Acenaphthene	0.85	U	NA
Fluorene	0.18	U	80
Phenanthrene	0.049	U	NA
Anthracene	0.033	U	NA
Fluoranthene	0.021	U	NA
Pyrene	0.19	U	NA
Benzo(a)anthracene	0.019	U	NA
Chrysene	0.063	U	NA
Benzo(b)fluoranthene	0.037	U	NA
Benzo(k)fluoranthene	0.029	U	NA
Benzo(a)pyrene	0.023	U	0.02
Dibenzo(a,h)pyrene	0.050	U	NA
Benzo(g,h,l)perylene	0.11	U	NA
Indeno(1,2,3-cd)pyrene	0.068	U	NA

VOC - Volatile Organic Compound.

PAH - Polynuclear Aromatic Hydrocarbon.

PAL - Wisconsin Department of Natural Resources Preventative Action Limit.

NA - PAL not established for this parameter.



NOTE:  
LOCATION OF SEWER SERVICE  
AND WATERLINE CONNECTION IS  
AT FRONT GATE TO PROPERTY.

**LEGEND**

- BUILDING/STRUCTURE 1991 AERIAL
- MW-35 MONITORING WELL
- TW-06 FREE PRODUCT WELL
- PW-01 PRODUCT RECOVERY WELL
- FENCE
- PROPERTY LINE
- FREE PRODUCT RECOVERY TANKS
- TREE LINE
- 100-YEAR FLOOD PLAIN
- DIRECTION OF GROUNDWATER FLOW
- 730 GROUNDWATER ELEVATION CONTOUR
- ESTIMATED BOUNDARY OF CONTAMINANT PLUME

NOTE: WATER LEVELS OF MONITORING WELLS MW-BS AND TW-09 WERE NOT CONSIDERED BECAUSE OF PRODUCT.



**ABRAMS**  
AERIAL SURVEY CORPORATION  
124 NORTH LARCH LAKEWOOD, WI 53012  
PO Box 15008 LAKEWOOD, WI 53001-5008

2/98	100% DESIGN SUBMITTAL				
NO.	DATE	APPR.	NO.	DATE	APPR.

**MOSS - AMERICAN SITE**  
Milwaukee, Wisconsin

**WESTON**  
ENGINEERS/CONSULTANTS

CHECKED	DATE	CLIENT APPROVALS	DATE
DES. ENG.			
PROJ. ENG.			
PROJ. MGR.			
APPROVED			
APPROVED		ISSUED FOR	DATE

**GROUNDWATER ELEVATION CONTOUR MAP**  
3RD QUARTER 1998

DRAWN	D.C.H.	DATE	NOV 98	FIGURE		REV. NO.	
SCALE	1" = 60'	W.D. NO.	02687007002002200	SHT.		OF	

DATE OF PHOTOGRAPHY APRIL 16, 1991  
AERIAL PHOTOGRAPHY BY JAMES J. CARROLL, INC.





**LLI Sample No. WW 3009016**

Collected: 9/29/98 at 14:15 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-3S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W3S03 SDG#: MOS04-07

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		LIMIT UNITS
		RESULTS	METHOD DETECTION	
1861	PAH's in Water			See Page 2
8213	BTEX (8021)			See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300  
19:29:49 D 0003 16 128410 634092  
232 0.00 00021753 ASR000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. WW 3009016**

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MW-3S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W3S03 SDG#: MOS04-07

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
PAH's in Water				
3280	Naphthalene	0.81 J	0.77	ug/l
3281	Acenaphthylene	N.D.	0.77	ug/l
3282	Acenaphthene	N.D.	0.77	ug/l
3283	Fluorene	N.D.	0.16	ug/l
3284	Phenanthrene	N.D.	0.044	ug/l
3285	Anthracene	N.D.	0.030	ug/l
3286	Fluoranthene	0.023 J	0.019	ug/l
3287	Pyrene	N.D.	0.17	ug/l
3288	Benzo(a)anthracene	N.D.	0.017	ug/l
3289	Chrysene	N.D.	0.057	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.034	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.026	ug/l
3292	Benzo(a)pyrene	N.D.	0.021	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.045	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.061	ug/l

*Handwritten signature:* J. Hower  
12/31/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
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**LLI Sample No. WW 3009016**

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MW-3S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W3S03 SDG#: MOS04-07

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

*Y. Kowalski  
10/13/98*

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
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717-656-2300 Fax: 717-656-2681

See reverse side for explanation of symbols and abbreviations

2216 Rev. 8/4/97





**LLI Sample No. WW 3009016**  
Collected: 09/29/98 at 14:15 by JA

Submitted: 09/30/98

MW-3S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W3S03 SDG#: MOS04-07

Account No: 07802 Kerr-McGee Corporation P.O. Box 25861 Oklahoma City OK 73125
---

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		ANALYST
			TRIAL ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1	10/12/98 2142	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1	10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1	10/02/98 0021	Jodie L. Buckwalter



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681







**LLI Sample No. 3009016**  
MW-3S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
-----											
1861 PAH's in Water			Batch: 982740006A								
-----											
3280	Naphthalene 0.77 ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene 0.77 ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene 0.77 ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene 0.16 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene 0.044 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene 0.030 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene 0.019 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene 0.17 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene 0.017 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene 0.057 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene 0.034 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene 0.026 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene 0.021 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene 0.045 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene 0.095 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene 0.061 ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)			Batch: 98274A65								
-----											
0776	Benzene 0.2 ug/l	N.D.		105	102	3	107			81	124
0777	Toluene 0.2 ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene 0.2 ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes 0.6 ug/l	N.D.		106	102	4	106			81	120



Lancaster Laboratories  
2425 New Holland Pike  
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Lancaster, PA 17605-2425  
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**LLI Sample No. 3009016**

MW-3S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

### SURROGATE SUMMARY

TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS	
			LOW	HIGH
1861 PAH's in Water	Nitrobenz	91	22	131
	Triphenyle	98	60	120
8213 BTEX (8021)	TFT	97	77	125



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See reverse side for explanation of symbols and abbreviations.

2216 (rev. 8/4/97)





Lancaster Laboratories  
A division of Thermo Analytical Inc.

LLI Sample No. WW 3009017

Collected: 9/29/98 at 15:00 by JA

Submitted: 9/30/98 Reported: 10/19/98  
Discard: 11/19/98

MW-3I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W3I03 SDG#: MOS04-08

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Re1.

CAT NO.	ANALYSIS NAME	AS RECEIVED	
		RESULTS	METHOD DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300  
19:30:57 D 0003 16 128410 634092  
232 0.00 00021753 ASR000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
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Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009017**

Collected: 9/29/98 at 15:00 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-3I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W3I03 SDG#: MOS04-08

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Re1.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
PAH's in Water				
3280	Naphthalene	N.D.	0.77	ug/l
3281	Acenaphthylene	N.D.	0.77	ug/l
3282	Acenaphthene	N.D.	0.77	ug/l
3283	Fluorene	N.D.	0.16	ug/l
3284	Phenanthrene	N.D.	0.044	ug/l
3285	Anthracene	N.D.	0.030	ug/l
3286	Fluoranthene	N.D.	0.019	ug/l
3287	Pyrene	N.D.	0.17	ug/l
3288	Benzo(a)anthracene	N.D.	0.017	ug/l
3289	Chrysene	0.158 J	0.057	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.034	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.026	ug/l
3292	Benzo(a)pyrene	N.D.	0.021	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.045	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.062	ug/l

*Handwritten:* 12/13/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681

See reverse side for explanation of symbols and abbreviations

221c Rev. 8/4/97



**LLI Sample No. WW 3009017**

Collected: 9/29/98 at 15:00 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-3I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W3I03 SDG#: MOS04-08

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

*Handwritten signature: J. K. ...  
12-13-1998*

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. WW 3009017**

Collected: 09/29/98 at 15:00 by JA

Submitted: 09/30/98

MW-3I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W3103 SDG#: MOS04-08

Account No: 07802
Kerr-McGee Corporation
P.O. Box 25861
OkTahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		ANALYST
			TRIAL ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1	10/12/98 2201	Michele J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1	10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1	10/02/98 0140	Jodie L. Buckwalter



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. 3009017**  
MW-3I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
-----											
1861 PAH's in Water		Batch: 982740006A									
-----											
3280	Naphthalene										
	0.77 ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene										
	0.77 ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene										
	0.77 ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene										
	0.16 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene										
	0.044 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene										
	0.030 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene										
	0.019 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene										
	0.17 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene										
	0.017 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene										
	0.057 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene										
	0.034 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene										
	0.026 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene										
	0.021 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene										
	0.045 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene										
	0.095 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene										
	0.062 ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)		Batch: 98274A65									
-----											
0776	Benzene										
	0.2 ug/l	N.D.		105	102	3	107			81	124
0777	Toluene										
	0.2 ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene										
	0.2 ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes										
	0.6 ug/l	N.D.		106	102	4	106			81	120



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 fax 717-656-2681





LLI Sample No. 3009017  
MW-3I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
1861 PAH's in Water		Nitrobenz	96	22	131
		Triphenyle	94	60	120
8213 BTEX (8021)		TFT	99	77	125



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See reverse side for explanation of symbols and abbreviations

2216 Rev. 8/4/97







**LLI Sample No. WW 3009021**

Collected: 9/29/98 at 18:00 by JA

Submitted: 9/30/98 Reported: 10/19/98  
Discard: 11/19/98

MW-4S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W4S03 SDG#: MOS04-12

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		LIMIT	UNITS
		RESULTS	METHOD DETECTION		
1861	PAH's in Water			See Page	2
8213	BTEX (8021)			See Page	3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300  
19:35:18 D 0003 16 128410 634092  
232 0.00 00021753 ASR000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



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PO Box 12425  
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717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009021**

Collected: 9/29/98 at 18:00 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-4S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W4S03 SDG#: MOS04-12

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
PAH's in Water				
3280	Naphthalene	863.	3.8	ug/l
3281	Acenaphthylene	53.	3.8	ug/l
3282	Acenaphthene	680.	3.8	ug/l
3283	Fluorene	323.	3.3	ug/l
3284	Phenanthrene	18.7	0.22	ug/l
3285	Anthracene	35.0	0.15	ug/l
3286	Fluoranthene	134.	0.38	ug/l
3287	Pyrene	141.	0.86	ug/l
3288	Benzo(a)anthracene	18.7	0.086	ug/l
3289	Chrysene	17.3	0.28	ug/l
3290	Benzo(b)fluoranthene	5.94	0.17	ug/l
3291	Benzo(k)fluoranthene	3.36	0.13	ug/l
3292	Benzo(a)pyrene	7.45	0.11	ug/l
3293	Dibenzo(a,h)anthracene	1.0	0.22	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.47	ug/l
3295	Indeno(1,2,3-cd)pyrene	3.2	0.31	ug/l

Due to the dilution required for analysis, accurate surrogate recoveries could not be determined for this sample.

*J. Hess*  
10/19/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



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PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681



**LLI Sample No. WW 3009021**

Collected: 9/29/98 at 18:00 by JA

Submitted: 9/30/98 Reported: 10/19/98  
Discard: 11/19/98

MW-4S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W4S03 SDG#: MOS04-12

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Re1.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	3.	0.2	ug/l
0777	Toluene	4.	0.2	ug/l
0778	Ethylbenzene	6.	0.2	ug/l
0779	Total Xylenes	14.	0.6	ug/l

*Handwritten:*  
Z. Kerwin  
12/3/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009021**

Collected: 09/29/98 at 18:00 by JA

Submitted: 09/30/98

MW-4S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W4S03 SDG#: MOS04-12

Account No: 07802
Kerr-McGee Corporation
P.O. Box 25861
Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		ANALYST
			TRIAL ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1	10/13/98 0002	Michelle J. Kolodziejwski
3337	PAH Water Extraction	SW-846 3510C	1	10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1	10/01/98 2153	Jodie L. Buckwalter



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. 3009021**

MW-4S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
-----											
1861 PAH's in Water		Batch: 982740006A									
-----											
3280	Napthalene 3.8 ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene 3.8 ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene 3.8 ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene 3.3 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene 0.22 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene 0.15 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene 0.38 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene 0.86 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene 0.086 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene 0.28 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene 0.17 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene 0.13 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene 0.11 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene 0.22 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene 0.47 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene 0.31 ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)		Batch: 98274A65									
-----											
0776	Benzene 0.2 ug/l	N.D.		105	102	3	107			81	124
0777	Toluene 0.2 ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene 0.2 ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes 0.6 ug/l	N.D.		106	102	4	106			81	120



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. 3009013**  
MW-7S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
1861 PAH's in Water		Nitrobenz	113	22	131
		Triphenyle	96	60	120
8213 BTEX (8021)		TFT	96	77	125



Lancaster Laboratories  
2425 New Holland Pike  
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See reverse side for explanation of symbols and abbreviations

2216 Rev. 8/4/97





LLI Sample No. WW 3009884

Collected: 9/30/98 at 09:30 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

MW-8I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
8I03- SDG#: MOS04-17

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	RESULTS	METHOD	
			DETECTION LIMIT	UNITS
1861	PAH's in Water		See Page	2
8213	BTEX (8021)		See Page	3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300  
13:09:33 D 0003 6 REP 128410 634300  
050 0.00 00021753 DIS000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pkwy  
PO Box 12421  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009907**

Collected: 9/30/98 at 09:30 by JA

Submitted: 10/ 1/98 Reported: 12/17/98

Discard: 12/17/98

MW-4I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
4I-03 SDG#: MOS05-01

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION	LIMIT UNITS
PAH's in Water				
3280	Naphthalene	N.D.	0.76	ug/l
3281	Acenaphthylene	N.D.	0.76	ug/l
3282	Acenaphthene	N.D.	0.76	ug/l
3283	Fluorene	N.D.	0.16	ug/l
3284	Phenanthrene	0.060 J	0.044	ug/l
3285	Anthracene	N.D.	0.030	ug/l
3286	Fluoranthene	0.024 J	0.019	ug/l
3287	Pyrene	0.44 J	0.17	ug/l
3288	Benzo(a)anthracene	N.D.	0.017	ug/l
3289	Chrysene	0.068 J	0.056	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.033	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.026	ug/l
3292	Benzo(a)pyrene	N.D.	0.021	ug/l
3293	Dibenzo(a, h)anthracene	N.D.	0.045	ug/l
3294	Benzo(g, h, i)perylene	N.D.	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.061	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681

See reverse side for explanation of symbols and abbreviations

2216 Rev. 8/4/97







LLI Sample No. WW 3009907

Collected: 9/30/98 at 09:30 by JA

Submitted: 10/ 1/98 Reported: 12/17/98

Discard: 12/17/98

MW-4I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
4I-03 SDG#: MOS05-01

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17609-2425  
717-656-2300 Fax 717-656-2631





**LLI Sample No. WW 3009907**

Collected: 09/30/98 at 09:30 by JA

Submitted: 10/01/98

MW-4I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
4I-03 SDG#: MOS05-01

Account No: 07802  
 Kerr-McGee Corporation  
 P.O. Box 25861  
 Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		ANALYST
			TRIAL ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1	10/13/98 0459	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1	10/02/98 1000	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021B	1	10/06/98 0322	Jodie L. Buckwalter



Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17609-2425  
 717-656-2300 Fax 717-656-2661





**LLI Sample No. 3009907**

MW-4I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634306  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
1861 PAH's in Water		Batch: 982750001A									
-----											
3280 Naphthalene	0.76 ug/l	N.D.		94	88	7	86			37	120
3281 Acenaphthylene	0.76 ug/l	N.D.		98	92	7	90			41	135
3282 Acenaphthene	0.76 ug/l	N.D.		99	93	7	88			38	135
3283 Fluorene	0.16 ug/l	N.D.		103	97	7	94			41	140
3284 Phenanthrene	0.044 ug/l	N.D.		102	97	5	96			48	152
3285 Anthracene	0.030 ug/l	N.D.		90	86	4	85			42	143
3286 Fluoranthene	0.019 ug/l	N.D.		103	99	4	98			48	155
3287 Pyrene	0.17 ug/l	N.D.		107	105	2	101			51	146
3288 Benzo(a)anthracene	0.017 ug/l	N.D.		100	98	3	96			52	146
3289 Chrysene	0.056 ug/l	0.107 J ug/l		104	102	2	99			56	145
3290 Benzo(b)fluoranthene	0.033 ug/l	N.D.		110	106	3	101			59	141
3291 Benzo(k)fluoranthene	0.026 ug/l	N.D.		103	99	4	96			60	137
3292 Benzo(a)pyrene	0.021 ug/l	N.D.		107	100	7	98			42	158
3293 Dibenzo(a,h)anthracene	0.045 ug/l	N.D.		104	101	3	97			49	142
3294 Benzo(g,h,i)perylene	0.095 ug/l	N.D.		107	104	3	102			46	148
3295 Indeno(1,2,3-cd)pyrene	0.061 ug/l	N.D.		107	104	4	99			64	134
-----											
8213 BTEX (8021)		Batch: 98278A65									
-----											
0776 Benzene	0.2 ug/l	N.D.		103	103	0	96			81	124
0777 Toluene	0.2 ug/l	N.D.		103	100	2	97			84	119
0778 Ethylbenzene	0.2 ug/l	N.D.		102	97	4	96			82	118
0779 Total Xylenes	0.6 ug/l	N.D.		102	97	4	97			81	120



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. 3009907**  
MW-4I-03 Grab Water Sample  
Moss-American Superfund Site - Milwaukee, WI

Group No. 634306  
Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
1861 PAH's in Water		Nitrobenz	100	22	131
		Triphenyle	101	60	120
8213 BTEX (8021)		TFT	93	77	125



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2601



**LLI Sample No. WW 3009015**

Collected: 9/29/98 at 12:15 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-5S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W5S03 SDG#: MOS04-06

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	METHOD	
		RESULTS	DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300  
19:28:56 D 0003 16 128410 634092  
232 0.00 00021753 ASR000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





LLI Sample No. WW 3009015

Collected: 9/29/98 at 12:15 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-5S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W5S03 SDG#: MOS04-06

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
PAH's in Water				
3280	Naphthalene	N.D.	0.77	ug/l
3281	Acenaphthylene	N.D.	0.77	ug/l
3282	Acenaphthene	N.D.	0.77	ug/l
3283	Fluorene	N.D.	0.16	ug/l
3284	Phenanthrene	N.D.	0.044	ug/l
3285	Anthracene	N.D.	0.030	ug/l
3286	Fluoranthene	N.D.	0.019	ug/l
3287	Pyrene	N.D.	0.17	ug/l
3288	Benzo(a)anthracene	N.D.	0.017	ug/l
3289	Chrysene	0.107 J	0.056	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.033	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.026	ug/l
3292	Benzo(a)pyrene	N.D.	0.021	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.045	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.061	ug/l

*L. Koralski*  
*12/3/98*

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. WW 3009015**

Collected: 9/29/98 at 12:15 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-5S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W5S03 SDG#: MOS04-06

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Re1.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION	LIMIT UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

*Handwritten:*  
12/3/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009015**

Collected: 09/29/98 at 12:15 by JA

Submitted: 09/30/98

Account No: 07802 Kerr-McGee Corporation P.O. Box 25861 Oklahoma City OK 73125
---

MW-5S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W5S03 SDG#: MOS04-06

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		ANALYST
			TRIAL ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1	10/09/98 0937	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1	10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1	10/01/98 2344	Jodie L. Buckwalter



Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax 717-656-2681







**LLI Sample No. 3009015**  
MW-5S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
1861 PAH's in Water		Batch: 982740006A									
-----											
3280	Naphthalene 0.77 ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene 0.77 ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene 0.77 ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene 0.16 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene 0.044 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene 0.030 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene 0.019 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene 0.17 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene 0.017 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene 0.056 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene 0.033 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene 0.026 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene 0.021 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene 0.045 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene 0.095 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene 0.061 ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)		Batch: 98274A65									
-----											
0776	Benzene 0.2 ug/l	N.D.		105	102	3	107			81	124
0777	Toluene 0.2 ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene 0.2 ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes 0.6 ug/l	N.D.		106	102	4	106			81	120



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. 3009015**  
MW-5S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
1861 PAH's in Water		Nitrobenz	87	22	131
		Triphenyle	93	60	120
8213 BTEX (8021)		TFT	94	77	125



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





LLI Sample No. WW 3009886

Collected: 9/30/98 at 17:15 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

MW-6S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
6-SXX SDG#: MOS04-19

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	METHOD	
		RESULTS	DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative

Donald J. Nazario at (717) 656-2300  
13:12:56 D 0003 6 REP 128410 634300  
050 0.00 00021753 DIS000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pkwy  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2651





**LLI Sample No. WW 3009886**

Collected: 9/30/98 at 17:15 by JA

Submitted: 10/1/98 Reported: 12/17/98

Discard: 12/17/98

MW-6S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
6-SXX SDG#: MOS04-19

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD	DETECTION LIMIT UNITS
PAH's in Water				
3280	Naphthalene	N.D.	0.76	ug/l
3281	Acenaphthylene	N.D.	0.76	ug/l
3282	Acenaphthene	N.D.	0.76	ug/l
3283	Fluorene	0.29 J	0.16	ug/l
3284	Phenanthrene	0.44	0.044	ug/l
3285	Anthracene	0.031 J	0.030	ug/l
3286	Fluoranthene	N.D.	0.019	ug/l
3287	Pyrene	0.32 J	0.17	ug/l
3288	Benzo(a)anthracene	N.D.	0.017	ug/l
3289	Chrysene	0.104 J	0.056	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.033	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.026	ug/l
3292	Benzo(a)pyrene	N.D.	0.021	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.045	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.061	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2325 New Howard Pkwy  
PO Box 12425  
Lancaster, PA 17605-2425  
TEL: 717-656-2300 FAX: 717-656-2305





**LLI Sample No. WW 3009886**

Collected: 9/30/98 at 17:15 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

MW-6S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
6-SXX SDG#: MOS04-19

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	RESULTS	METHOD	
			DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Blvd.  
PO Box 1242  
Lancaster, PA 17604-0242  
(717) 656-2300 Fax: (717) 656-2187





LLI Sample No. WW 3009886

Collected: 09/30/98 at 17:15 by JA

Submitted: 10/01/98

MW-6S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
6-SXX SDG#: MOS04-19

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS			
			TRIAL	ID	DATE AND TIME	ANALYST
1861	PAH's in Water	SW-846 8310	1		10/13/98 0439	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1		10/02/98 1000	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021B	1		10/06/98 0245	Jodie L. Buckwalter



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17602-2425  
717-656-2400 Fax 717-656-2087



**LLI Sample No. 3009886**

MW-6S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634300  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
-----											
1861 PAH's in Water		Batch: 982750001A									
-----											
3280	Naphthalene										
	0.76 ug/l	N.D.		94	88	7	86			37	120
3281	Acenaphthylene										
	0.76 ug/l	N.D.		98	92	7	90			41	135
3282	Acenaphthene										
	0.76 ug/l	N.D.		99	93	7	88			38	135
3283	Fluorene										
	0.16 ug/l	N.D.		103	97	7	94			41	140
3284	Phenanthrene										
	0.044 ug/l	N.D.		102	97	5	96			48	152
3285	Anthracene										
	0.030 ug/l	N.D.		90	86	4	85			42	143
3286	Fluoranthene										
	0.019 ug/l	N.D.		103	99	4	98			48	155
3287	Pyrene										
	0.17 ug/l	N.D.		107	105	2	101			51	146
3288	Benzo(a)anthracene										
	0.017 ug/l	N.D.		100	98	3	96			52	146
3289	Chrysene										
	0.056 ug/l	0.107 J ug/l		104	102	2	99			56	145
3290	Benzo(b)fluoranthene										
	0.033 ug/l	N.D.		110	106	3	101			59	141
3291	Benzo(k)fluoranthene										
	0.026 ug/l	N.D.		103	99	4	96			60	137
3292	Benzo(a)pyrene										
	0.021 ug/l	N.D.		107	100	7	98			42	158
3293	Dibenzo(a,h)anthracene										
	0.045 ug/l	N.D.		104	101	3	97			49	142
3294	Benzo(g,h,i)perylene										
	0.095 ug/l	N.D.		107	104	3	102			46	148
3295	Indeno(1,2,3-cd)pyrene										
	0.061 ug/l	N.D.		107	104	4	99			64	134
-----											
8213 BTEX (8021)		Batch: 98278A65									
-----											
0776	Benzene										
	0.2 ug/l	N.D.		103	103	0	96			81	124
0777	Toluene										
	0.2 ug/l	N.D.		103	100	2	97			84	119
0778	Ethylbenzene										
	0.2 ug/l	N.D.		102	97	4	96			82	118
0779	Total Xylenes										
	0.6 ug/l	N.D.		102	97	4	97			81	120





**LLI Sample No. 3009886**  
 MW-6S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634300  
 Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS	
	TRIAL ID	SURROGATE	RECOVERY %	
1861 PAH's in Water		Nitrobenz	91	22
		Triphenyle	93	60
8213 BTEX (8021)		TFT	94	77
				125







**LLI Sample No. WW 3009013**

Collected: 9/29/98 at 09:30 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-7S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W7S03 SDG#: MOS04-04

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED	
		RESULTS	METHOD DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300  
19:27:05 D 0003 16 128410 634092  
232 0.00 00021753 ASR000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. WW 3009013**

Collected: 9/29/98 at 09:30 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-7S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W7S03 SDG#: MOS04-04

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	METHOD		
		RESULTS	DETECTION LIMIT	UNITS
PAH's in Water				
3280	Naphthalene	7,140.	15.	ug/l
3281	Acenaphthylene	260.	15.	ug/l
3282	Acenaphthene	200.	15.	ug/l
3283	Fluorene	30.	3.3	ug/l
3284	Phenanthrene	N.D.	0.88	ug/l
3285	Anthracene	N.D.	0.59	ug/l
3286	Fluoranthene	N.D.	0.38	ug/l
3287	Pyrene	N.D.	3.5	ug/l
3288	Benzo(a)anthracene	N.D.	0.35	ug/l
3289	Chrysene	N.D.	1.1	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.67	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.52	ug/l
3292	Benzo(a)pyrene	N.D.	0.42	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.90	ug/l
3294	Benzo(g,h,i)perylene	N.D.	1.9	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	1.2	ug/l

*J. Hess*  
10/19/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009013**

Collected: 9/29/98 at 09:30 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-7S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W7S03 SDG#: MOS04-04

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	RESULTS	METHOD	
			DETECTION LIMIT	UNITS

BTEX (8021)

0776	Benzene	8.	J	2.	ug/l
0777	Toluene	N.D.		2.	ug/l
0778	Ethylbenzene	20.		2.	ug/l
0779	Total Xylenes	70.		6.	ug/l

Due to the nature of the sample matrix, normal reporting limits were not attained.

*Handwritten:*  
Kerr-McGee  
12/3/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009013**

Collected: 09/29/98 at 09:30 by JA

Submitted: 09/30/98

MW-7S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W7S03 SDG#: MOS04-04

Account No: 07802
Kerr-McGee Corporation
P.O. Box 25861
Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		ANALYST
			TRIAL ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1	10/14/98 2125	Christine M. Dulaney
3337	PAH Water Extraction	SW-846 3510C	1	10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1	10/02/98 0421	Jodie L. Buckwalter



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. 3009013**  
MW-7S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
-----											
1861 PAH's in Water		Batch: 982740006A									
-----											
3280	Napthalene										
	15. ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene										
	15. ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene										
	15. ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene										
	3.3 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene										
	0.88 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene										
	0.59 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene										
	0.38 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene										
	3.5 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene										
	0.35 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene										
	1.1 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene										
	0.67 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene										
	0.52 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene										
	0.42 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene										
	0.90 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene										
	1.9 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene										
	1.2 ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)		Batch: 98274A65									
-----											
0776	Benzene										
	2. ug/l	N.D.		105	102	3	107			81	124
0777	Toluene										
	2. ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene										
	2. ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes										
	6. ug/l	N.D.		106	102	4	106			81	120



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. 3009013**

MW-7S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SURROGATE SUMMARY

TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS	
			LOW	HIGH
1861 PAH's in Water	Nitrobenz	113	22	131
	Triphenyle	96	60	120
8213 BTEX (8021)	TFT	96	77	125



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681

See reverse side for explanation of symbols and abbreviations

2216 Rev. 8/4/97





LLI Sample No. WW 3009884

Collected: 9/30/98 at 09:30 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

MW-8I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
8I03- SDG#: MOS04-17

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	RESULTS	METHOD	
			DETECTION	LIMIT UNITS
1861	PAH's in Water		See Page	2
8213	BTEX (8021)		See Page	3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300  
13:09:33 D 0003 6 REP 128410 634300  
050 0.00 00021753 DIS000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pkwy  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2300





**Lancaster Laboratories**  
A division of Thermo Analytical Inc.

Page: 2 of 6

LLI Sample No. WW 3009884

Collected: 9/30/98 at 09:30 by JA

Submitted: 10/ 1/98 Reported: 12/17/98

Discard: 12/17/98

MW-8I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
8103- SDG#: MOS04-17

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
PAH's in Water				
3280	Naphthalene	N.D.	0.76	ug/l
3281	Acenaphthylene	N.D.	0.76	ug/l
3282	Acenaphthene	N.D.	0.76	ug/l
3283	Fluorene	0.26 J	0.16	ug/l
3284	Phenanthrene	0.55	0.044	ug/l
3285	Anthracene	0.037 J	0.030	ug/l
3286	Fluoranthene	0.120 J	0.019	ug/l
3287	Pyrene	N.D.	0.17	ug/l
3288	Benzo(a)anthracene	N.D.	0.017	ug/l
3289	Chrysene	N.D.	0.056	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.033	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.026	ug/l
3292	Benzo(a)pyrene	N.D.	0.021	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.045	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.061	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2601

See reverse side for explanation of symbols and abbreviations.

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs

2231-1 Rev. 6/2/99







**LLI Sample No. WW 3009884**

Collected: 9/30/98 at 09:30 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

MW-8I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
8I03- SDG#: MOS04-17

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	1.	ug/l
0778	Ethylbenzene	N.D.	1.	ug/l
0779	Total Xylenes	N.D.	3.	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 Field Holland Pkwy  
PO Box 12405  
Lancaster, PA 17605-2405  
717-656-2300 Fax: 717-656-2661





LLI Sample No. WW 3009884

Collected: 09/30/98 at 09:30 by JA

Submitted: 10/01/98

MW-8I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
8I03- SDG#: MOS04-17

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		
			TRIAL ID	DATE AND TIME	ANALYST
1861	PAH's in Water	SW-846 8310	1	10/13/98 0400	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1	10/02/98 1000	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021B	1	10/06/98 0131	Jodie L. Buckwalter



Lancaster Laboratories  
7425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17607-2425  
TEL: 656-2531 Fax: 717-656-2681





**LLI Sample No. 3009884**

MW-8I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634300  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----		Batch: 982750001A		-----							
1861 PAH's in Water											
3280	Naphthalene										
	0.76 ug/l	N.D.		94	88	7	86			37	120
3281	Acenaphthylene										
	0.76 ug/l	N.D.		98	92	7	90			41	135
3282	Acenaphthene										
	0.76 ug/l	N.D.		99	93	7	88			38	135
3283	Fluorene										
	0.16 ug/l	N.D.		103	97	7	94			41	140
3284	Phenanthrene										
	0.044 ug/l	N.D.		102	97	5	96			48	152
3285	Anthracene										
	0.030 ug/l	N.D.		90	86	4	85			42	143
3286	Fluoranthene										
	0.019 ug/l	N.D.		103	99	4	98			48	155
3287	Pyrene										
	0.17 ug/l	N.D.		107	105	2	101			51	146
3288	Benzo(a)anthracene										
	0.017 ug/l	N.D.		100	98	3	96			52	146
3289	Chrysene										
	0.056 ug/l	0.107 J ug/l		104	102	2	99			56	145
3290	Benzo(b)fluoranthene										
	0.033 ug/l	N.D.		110	106	3	101			59	141
3291	Benzo(k)fluoranthene										
	0.026 ug/l	N.D.		103	99	4	96			60	137
3292	Benzo(a)pyrene										
	0.021 ug/l	N.D.		107	100	7	98			42	158
3293	Dibenzo(a,h)anthracene										
	0.045 ug/l	N.D.		104	101	3	97			49	142
3294	Benzo(g,h,i)perylene										
	0.095 ug/l	N.D.		107	104	3	102			46	148
3295	Indeno(1,2,3-cd)pyrene										
	0.061 ug/l	N.D.		107	104	4	99			64	134
-----		Batch: 98278A65		-----							
8213 BTEX (8021)											
0776	Benzene										
	0.2 ug/l	N.D.		103	103	0	96			81	124
0777	Toluene										
	1. ug/l	N.D.		103	100	2	97			84	119
0778	Ethylbenzene										
	1. ug/l	N.D.		102	97	4	96			82	118
0779	Total Xylenes										
	3. ug/l	N.D.		102	97	4	97			81	120



Lancaster Laboratories  
2425 West Holland Road  
PO Box 12425  
Lancaster, PA 17605-2425  
717-650-2300 Fax 717-650-3557





**LLI Sample No. 3009884**  
MW-8I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634300  
Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
1861 PAH's in Water		Nitrobenz	97	22	131
		Triphenyle	87	60	120
8213 BTEX (8021)		TFT	89	77	125





LLI Sample No. WW 3009909

Collected: 9/30/98 at 11:45 by JA

Submitted: 10/ 1/98 Reported: 12/17/98

Discard: 12/17/98

MW-9S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
9S-03 SDG#: MOS05-03

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED	
		RESULTS	METHOD DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300  
13:26:36 D 0003 4 REP 128410 634306  
050 0.00 00021753 DIS000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2661



**LLI Sample No. WW 3009909**

Collected: 9/30/98 at 11:45 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

MW-9S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
9S-03 SDG#: MOS05-03

Account No: 07802
Kerr-McGee Corporation
P.O. Box 25861
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		METHOD	DETECTION LIMIT UNITS
		RESULTS			
PAH's in Water					
3280	Naphthalene	2.06	J	0.76	ug/l
3281	Acenaphthylene	N.D.		0.76	ug/l
3282	Acenaphthene	N.D.		0.76	ug/l
3283	Fluorene	N.D.		0.16	ug/l
3284	Phenanthrene	N.D.		0.044	ug/l
3285	Anthracene	N.D.		0.029	ug/l
3286	Fluoranthene	N.D.		0.019	ug/l
3287	Pyrene	N.D.		0.17	ug/l
3288	Benzo(a)anthracene	N.D.		0.017	ug/l
3289	Chrysene	0.196	J	0.056	ug/l
3290	Benzo(b)fluoranthene	N.D.		0.033	ug/l
3291	Benzo(k)fluoranthene	N.D.		0.026	ug/l
3292	Benzo(a)pyrene	N.D.		0.021	ug/l
3293	Dibenzo(a,h)anthracene	N.D.		0.045	ug/l
3294	Benzo(g,h,i)perylene	N.D.		0.094	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.		0.061	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2661

See reverse side for explanation of symbols and abbreviations.

2216 Rev 8/4/93



LLI Sample No. WW 3009909

Collected: 9/30/98 at 11:45 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

MW-9S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
9S-03 SDG#: MOS05-03

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
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PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2661

See reverse side for explanation of symbols and abbreviations.

2276 Rev. 5/97/1





**LLI Sample No. WW 3009909**

Collected: 09/30/98 at 11:45 by JA

Submitted: 10/01/98

MW-9S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
9S-03 SDG#: MOS05-03

Account No: 07802
Kerr-McGee Corporation
P.O. Box 25861
Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS		ANALYST
				ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1		10/13/98 0538	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1		10/02/98 1000	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021B	1		10/06/98 0627	Jodie L. Buckwalter



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2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2631







**LLI Sample No. 3009909**

MW-9S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634306  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
1861 PAH's in Water			Batch: 982750001A								
-----											
3280	Naphthalene 0.76 ug/l	N.D.		94	88	7	86			37	120
3281	Acenaphthylene 0.76 ug/l	N.D.		98	92	7	90			41	135
3282	Acenaphthene 0.76 ug/l	N.D.		99	93	7	88			38	135
3283	Fluorene 0.16 ug/l	N.D.		103	97	7	94			41	140
3284	Phenanthrene 0.044 ug/l	N.D.		102	97	5	96			48	152
3285	Anthracene 0.029 ug/l	N.D.		90	86	4	85			42	143
3286	Fluoranthene 0.019 ug/l	N.D.		103	99	4	98			48	155
3287	Pyrene 0.17 ug/l	N.D.		107	105	2	101			51	146
3288	Benzo(a)anthracene 0.017 ug/l	N.D.		100	98	3	96			52	146
3289	Chrysene 0.056 ug/l	0.107 J ug/l		104	102	2	99			56	145
3290	Benzo(b)fluoranthene 0.033 ug/l	N.D.		110	106	3	101			59	141
3291	Benzo(k)fluoranthene 0.026 ug/l	N.D.		103	99	4	96			60	137
3292	Benzo(a)pyrene 0.021 ug/l	N.D.		107	100	7	98			42	158
3293	Dibenzo(a,h)anthracene 0.045 ug/l	N.D.		104	101	3	97			49	142
3294	Benzo(g,h,i)perylene 0.094 ug/l	N.D.		107	104	3	102			46	148
3295	Indeno(1,2,3-cd)pyrene 0.061 ug/l	N.D.		107	104	4	99			64	134
-----											
8213 BTEX (8021)			Batch: 98278A65								
-----											
0776	Benzene 0.2 ug/l	N.D.		103	103	0	96			81	124
0777	Toluene 0.2 ug/l	N.D.		103	100	2	97			84	119
0778	Ethylbenzene 0.2 ug/l	N.D.		102	97	4	96			82	118
0779	Total Xylenes 0.6 ug/l	N.D.		102	97	4	97			81	120



Lancaster Laboratories  
2425 New Holland Pike  
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717-656-2300 Fax 717-656-2687





**LLI Sample No. 3009909**

MW-9S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634306  
Kerr-McGee Corporation

SURROGATE SUMMARY

	TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS	
				LOW	HIGH
1861 PAH's in Water		Nitrobenz	90	22	131
		Triphenyle	100	60	120
8213 BTEX (8021)		TFT	94	77	125



Lancaster Laboratories  
2425 New Holland Pike  
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See reverse side for explanation of symbols and abbreviations





LLI Sample No. WW 3009908

Collected: 9/30/98 at 11:30 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

MW-9I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
9I-03 SDG#: MOS05-02

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	METHOD	
		RESULTS	DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300  
13:23:30 D 0003 4 REP 128410 634306  
050 0.00 00021753 DIS000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
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Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





LLI Sample No. **ww 3009908**

Collected: 9/30/98 at 11:30 by JA

Submitted: 10/ 1/98 Reported: 12/17/98

Discard: 12/17/98

MW-9I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
9I-03 SDG#: MOS05-02

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
PAH's in Water				
3280	Naphthalene	N.D.	0.77	ug/l
3281	Acenaphthylene	N.D.	0.77	ug/l
3282	Acenaphthene	N.D.	0.77	ug/l
3283	Fluorene	N.D.	0.16	ug/l
3284	Phenanthrene	N.D.	0.044	ug/l
3285	Anthracene	N.D.	0.030	ug/l
3286	Fluoranthene	N.D.	0.019	ug/l
3287	Pyrene	N.D.	0.17	ug/l
3288	Benzo(a)anthracene	N.D.	0.017	ug/l
3289	Chrysene	0.070 J	0.057	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.034	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.026	ug/l
3292	Benzo(a)pyrene	N.D.	0.021	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.045	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.062	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Jennifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



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**LLI Sample No. WW 3009908**

Collected: 9/30/98 at 11:30 by JA

Submitted: 10/ 1/98 Reported: 12/17/98

Discard: 12/17/98

MW-9I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
9I-03 SDG#: MOS05-02

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster PA 17605-2425  
717-656-2300 Fax 717-656-2681

See reverse side for explanation of symbols and abbreviations.

2016 Rev. 9/14/97





LLI Sample No. WW 3009020

Collected: 9/29/98 at 17:30 by JA

Submitted: 9/30/98 Reported: 10/19/98  
Discard: 11/19/98

MW-13S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W13S3 SDG#: MOS04-11

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
PAH's in Water				
3280	Naphthalene	N.D.	0.77	ug/l
3281	Acenaphthylene	N.D.	0.77	ug/l
3282	Acenaphthene	N.D.	0.77	ug/l
3283	Fluorene	N.D.	0.16	ug/l
3284	Phenanthrene	N.D.	0.044	ug/l
3285	Anthracene	N.D.	0.030	ug/l
3286	Fluoranthene	0.028 J	0.019	ug/l
3287	Pyrene	N.D.	0.17	ug/l
3288	Benzo(a)anthracene	N.D.	0.017	ug/l
3289	Chrysene	N.D.	0.056	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.033	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.026	ug/l
3292	Benzo(a)pyrene	N.D.	0.021	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.045	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.061	ug/l

*L. Kozicki  
12/2/98*

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





LLI Sample No. **ww 3009020**

Collected: 9/29/98 at 17:30 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-13S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W13S3 SDG#: MOS04-11

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

METHOD

RESULTS      DETECTION LIMIT UNITS

CAT  
NO.      ANALYSIS NAME

BTEX (8021)

CAT NO.	ANALYSIS NAME	RESULTS	DETECTION LIMIT	UNITS
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt.

*Handwritten signature:* J. Kowalski  
12/13/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681

See reverse side for explanation of symbols and abbreviations.





**LLI Sample No. WW 3009020**

Collected: 09/29/98 at 17:30 by JA

Submitted: 09/30/98

MW-13S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W13S3 SDG#: MOS04-11

Account No: 07802  
 Kerr-McGee Corporation  
 P.O. Box 25861  
 Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		ANALYST
			TRIAL ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1	10/12/98 2339	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1	10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1	10/01/98 2116	Jodie L. Buckwalter



Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681







**LLI Sample No. 3009020**

MW-13S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
1861	PAH's in Water										
-----											
		Batch: 982740006A									
3280	Naphthalene										
	0.77 ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene										
	0.77 ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene										
	0.77 ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene										
	0.16 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene										
	0.044 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene										
	0.030 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene										
	0.019 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene										
	0.17 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene										
	0.017 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene										
	0.056 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene										
	0.033 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene										
	0.026 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene										
	0.021 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene										
	0.045 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene										
	0.095 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene										
	0.061 ug/l	N.D.		96	93	3	94			64	134
-----											
8213	BTEX (8021)										
-----											
		Batch: 98274A65									
0776	Benzene										
	0.2 ug/l	N.D.		105	102	3	107			81	124
0777	Toluene										
	0.2 ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene										
	0.2 ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes										
	0.6 ug/l	N.D.		106	102	4	106			81	120



Lancaster Laboratories  
2425 New Holland Pike  
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Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. 3009020**  
 MW-13S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
 Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS	
	TRIAL ID	SURROGATE	RECOVERY %	LOW HIGH
1861 PAH's in Water		Nitrobenz	85	22 131
		Triphenyle	97	60 120
8213 BTEX (8021)		TFT	97	77 125



Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681





**LLI Sample No. WW 3009010**

Collected: 9/28/98 at 16:30 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-20S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W20S3 SDG#: MOS04-01

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	METHOD	
		RESULTS	DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300  
19:24:18 D 0003 16 128410 634092  
232 0.00 00021753 ASR000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009010**

Collected: 9/28/98 at 16:30 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-20S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W20S3 SDG#: MOS04-01

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
PAH's in Water				
3280	Naphthalene	N.D.	0.76	ug/l
3281	Acenaphthylene	N.D.	0.76	ug/l
3282	Acenaphthene	N.D.	0.76	ug/l
3283	Fluorene	N.D.	0.16	ug/l
3284	Phenanthrene	N.D.	0.044	ug/l
3285	Anthracene	N.D.	0.030	ug/l
3286	Fluoranthene	N.D.	0.019	ug/l
3287	Pyrene	N.D.	0.17	ug/l
3288	Benzo(a)anthracene	N.D.	0.017	ug/l
3289	Chrysene	0.065 J	0.056	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.033	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.026	ug/l
3292	Benzo(a)pyrene	N.D.	0.021	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.045	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.061	ug/l

*J. Kowalski*  
12/2/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. WW 3009010**

Collected: 9/28/98 at 16:30 by JA

Submitted: 9/30/98 Reported: 10/19/98  
Discard: 11/19/98

MW-20S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W20S3 SDG#: MOS04-01

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

*AKA  
12/13/98*

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





## Lancaster Laboratories

*A division of Thermo Analytical Inc.*

**LLI Sample No. WW 3009010**

Collected: 09/28/98 at 16:30 by JA

Submitted: 09/30/98

Account No: 07802
Kerr-McGee Corporation
P.O. Box 25861
Oklahoma City OK 73125

MW-20S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W20S3 SDG#: MOS04-01

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		ANALYST
			TRIAL ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1	10/08/98 1652	Michelle J. Kolodziejski
3337	PAH Water Extraction	SW-846 3510C	1	10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1	10/01/98 1656	Jodie L. Buckwalter



Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax 717-656-2681





**LLI Sample No. 3009010**  
MW-20S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
1861 PAH's in Water		Batch: 982740006A									
3280	Naphthalene 0.76 ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene 0.76 ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene 0.76 ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene 0.16 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene 0.044 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene 0.030 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene 0.019 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene 0.17 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene 0.017 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene 0.056 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene 0.033 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene 0.026 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene 0.021 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene 0.045 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene 0.095 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene 0.061 ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)		Batch: 98274A65									
0776	Benzene 0.2 ug/l	N.D.		105	102	3	107			81	124
0777	Toluene 0.2 ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene 0.2 ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes 0.6 ug/l	N.D.		106	102	4	106			81	120



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





LLI Sample No. **3009010**  
MW-20S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

### SURROGATE SUMMARY

TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS	
			LOW	HIGH
1861 PAH's in Water	Nitrobenz	93	22	131
	Triphenyle	96	60	120
8213 BTEX (8021)	TFT	95	77	125



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**LLI Sample No. WW 3009011**

Collected: 9/28/98 at 17:00 by JA

Submitted: 9/30/98 Reported: 10/19/98  
Discard: 11/19/98

MW-20I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W20I3 SDG#: MOS04-02

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED	
		RESULTS	METHOD DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300  
19:25:13 D 0003 16 128410 634092  
232 0.00 00021753 ASR000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. WW 3009011**

Collected: 9/28/98 at 17:00 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-20I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W20I3 SDG#: MOS04-02

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
PAH's in Water				
3280	Naphthalene	N.D.	8.3	ug/l
3281	Acenaphthylene	N.D.	8.3	ug/l
3282	Acenaphthene	N.D.	8.3	ug/l
3283	Fluorene	N.D.	1.8	ug/l
3284	Phenanthrene	N.D.	0.48	ug/l
3285	Anthracene	N.D.	0.32	ug/l
3286	Fluoranthene	0.23 J	0.21	ug/l
3287	Pyrene	2.5 J	1.9	ug/l
3288	Benzo(a)anthracene	N.D.	0.19	ug/l
3289	Chrysene	1.27 J	0.62	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.36	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.28	ug/l
3292	Benzo(a)pyrene	N.D.	0.23	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.49	ug/l
3294	Benzo(g,h,i)perylene	N.D.	1.0	ug/l
3295	Indeno(1,2,3-cd)pyrene	0.88 J	0.67	ug/l

*0.2*  
*J. Hess*  
*10/19/98*

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
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**LLI Sample No. WW 3009011**

Collected: 9/28/98 at 17:00 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-20I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W20I3 SDG#: MOS04-02

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

## AS RECEIVED

CAT NO.	ANALYSIS NAME	RESULTS	METHOD	DETECTION LIMIT UNITS
---------	---------------	---------	--------	-----------------------

## BTEX (8021)

0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt.

*M. Turner*  
10/19/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



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**LLI Sample No. WW 3009011**

Collected: 09/28/98 at 17:00 by JA

Submitted: 09/30/98

MW-20I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W2013 SDG#: MOS04-02

Account No: 07802  
 Kerr-McGee Corporation  
 P.O. Box 25861  
 Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		
			TRIAL ID	DATE AND TIME	ANALYST
1861	PAH's in Water	SW-846 8310	1	10/08/98 1716	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1	10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1	10/01/98 1733	Jodie L. Buckwalter



Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681





**LLI Sample No. 3009011**  
MW-201-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
-----											
1861 PAH's in Water		Batch: 982740006A									
-----											
3280	Napthalene										
	8.3 ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene										
	8.3 ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene										
	8.3 ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene										
	1.8 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene										
	0.48 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene										
	0.32 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene										
	0.21 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene										
	1.9 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene										
	0.19 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene										
	0.62 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene										
	0.36 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene										
	0.28 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene										
	0.23 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene										
	0.49 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene										
	1.0 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene										
	0.67 ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)		Batch: 98274A65									
-----											
0776	Benzene										
	0.2 ug/l	N.D.		105	102	3	107			81	124
0777	Toluene										
	0.2 ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene										
	0.2 ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes										
	0.6 ug/l	N.D.		106	102	4	106			81	120



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
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**LLI Sample No. 3009011**

MW-20I-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
1861 PAH's in Water		Nitrobenz	68	22	131
		Triphenyle	77	60	120
8213 BTEX (8021)		TFT	93	77	125



Lancaster Laboratories  
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Lancaster, PA 17605-2425  
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LLI Sample No. WW 3009019

Collected: 9/29/98 at 16:30 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-25S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W25S3 SDG#: MOS04-10

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED	
		RESULTS	METHOD DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300  
19:32:56 D 0003 16 128410 634092  
232 0.00 00021753 ASR000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009019**

Collected: 9/29/98 at 16:30 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-25S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W25S3 SDG#: MOS04-10

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
PAH's in Water				
3280	Naphthalene	N.D.	0.77	ug/l
3281	Acenaphthylene	N.D.	0.77	ug/l
3282	Acenaphthene	N.D.	0.77	ug/l
3283	Fluorene	N.D.	0.16	ug/l
3284	Phenanthrene	N.D.	0.044	ug/l
3285	Anthracene	N.D.	0.030	ug/l
3286	Fluoranthene	N.D.	0.019	ug/l
3287	Pyrene	N.D.	0.17	ug/l
3288	Benzo(a)anthracene	N.D.	0.017	ug/l
3289	Chrysene	N.D.	0.056	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.033	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.026	ug/l
3292	Benzo(a)pyrene	N.D.	0.021	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.045	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.061	ug/l

*J. Kowalski*  
10/31/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681







LLI Sample No. WW 3009019  
Collected: 9/29/98 at 16:30 by JA

Submitted: 9/30/98 Reported: 10/19/98  
Discard: 11/19/98

MW-25S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W25S3 SDG#: MOS04-10

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD	DETECTION LIMIT UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

*J. Kireck  
12/13/98*

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. WW 3009019**

Collected: 09/29/98 at 16:30 by JA

Submitted: 09/30/98

Account No: 07802 Kerr-McGee Corporation P.O. Box 25861 Oklahoma City OK 73125
---

MW-25S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W25S3 SDG#: MOS04-10

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS			
			TRIAL	ID	DATE AND TIME	ANALYST
1861	PAH's in Water	SW-846 8310	1		10/12/98 2240	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1		10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1		10/01/98 2039	Jodie L. Buckwalter



Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681





**LLI Sample No. 3009019**  
MW-25S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
1861 PAH's in Water		Batch: 982740006A									
-----											
3280	Naphthalene 0.77 ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene 0.77 ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene 0.77 ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene 0.16 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene 0.044 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene 0.030 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene 0.019 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene 0.17 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene 0.017 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene 0.056 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene 0.033 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene 0.026 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene 0.021 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene 0.045 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene 0.095 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene 0.061 ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)		Batch: 98274A65									
-----											
0776	Benzene 0.2 ug/l	N.D.		105	102	3	107			81	124
0777	Toluene 0.2 ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene 0.2 ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes 0.6 ug/l	N.D.		106	102	4	106			81	120



Lancaster Laboratories  
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**LLI Sample No. 3009019**  
MW-25S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
1861 PAH's in Water		Nitrobenz	88	22	131
		Triphenyle	99	60	120
8213 BTEX (8021)		TFT	97	77	125



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See reverse side for explanation of symbols and abbreviations

2216 Rev. 8/4/97





**LLI Sample No. WW 3009018**

Collected: 9/29/98 at 15:40 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-26S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W26S3 SDG#: MOS04-09

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

METHOD

RESULTS      DETECTION LIMIT UNITS

CAT NO.	ANALYSIS NAME	RESULTS	DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative

Kay G. Hower at (717) 656-2300  
19:31:53 D 0003 16 128410 634092  
232 0.00 00021753 ASR000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
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Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009018**

Collected: 9/29/98 at 15:40 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-26S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W26S3 SDG#: MOS04-09

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	RESULTS	METHOD		
			DETECTION	LIMIT	UNITS
PAH's in Water					
3280	Naphthalene	2.17 J	0.77		ug/l
3281	Acenaphthylene	N.D.	0.77		ug/l
3282	Acenaphthene	N.D.	0.77		ug/l
3283	Fluorene	N.D.	0.16		ug/l
3284	Phenanthrene	N.D.	0.044		ug/l
3285	Anthracene	N.D.	0.030		ug/l
3286	Fluoranthene	N.D.	0.019		ug/l
3287	Pyrene	N.D.	0.17		ug/l
3288	Benzo(a)anthracene	N.D.	0.017		ug/l
3289	Chrysene	N.D.	0.057		ug/l
3290	Benzo(b)fluoranthene	N.D.	0.034		ug/l
3291	Benzo(k)fluoranthene	N.D.	0.026		ug/l
3292	Benzo(a)pyrene	N.D.	0.021		ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.045		ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.095		ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.062		ug/l

*J. Kordis*  
12/31/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
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717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009018**

Collected: 9/29/98 at 15:40 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

MW-26S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W26S3 SDG#: MOS04-09

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt.

*Y. Koroluk  
12/13/98*

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009018**

Collected: 09/29/98 at 15:40 by JA

Submitted: 09/30/98

MW-26S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W26S3 SDG#: MOS04-09

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		ANALYST
			TRIAL ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1	10/12/98 2221	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1	10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1	10/01/98 2001	Jodie L. Buckwalter



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2425 New Holland Pike  
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Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681







**LLI Sample No. 3009018**

MW-26S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
-----											
1861 PAH's in Water											
-----											
3280	Naphthalene										
	0.77 ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene										
	0.77 ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene										
	0.77 ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene										
	0.16 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene										
	0.044 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene										
	0.030 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene										
	0.019 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene										
	0.17 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene										
	0.017 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene										
	0.057 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene										
	0.034 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene										
	0.026 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene										
	0.021 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene										
	0.045 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene										
	0.095 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene										
	0.062 ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)											
-----											
0776	Benzene										
	0.2 ug/l	N.D.		105	102	3	107			81	124
0777	Toluene										
	0.2 ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene										
	0.2 ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes										
	0.6 ug/l	N.D.		106	102	4	106			81	120

Batch: 982740006A

Batch: 98274A65



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
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**LLI Sample No. 3009018**  
MW-26S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS	
			LOW	HIGH
1861 PAH's in Water	Nitrobenz	93	22	131
	Triphenyle	99	60	120
8213 BTEX (8021)	TFT	98	77	125



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2216 Rev. 8/4/97





LLI Sample No. WW 3010836

Collected: 10/ 1/98 at 09:15 by JA

Submitted: 10/ 2/98 Reported: 12/17/98

Discard: 12/17/98

MW-27S-03 Grab Water Sample  
RFW W.O. #02687-007-002-0022-00  
Moss-American Superfund Site - Milwaukee, WI  
MW27S SDG#: MOS05-05

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	METHOD	
		RESULTS	DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300  
13:31:58 D 0003 3 REP 128410 634510  
050 0.00 00021753 DIS000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
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Page: 2 of 6

LLI Sample No. WW 3010836

Collected: 10/ 1/98 at 09:15 by JA

Submitted: 10/ 2/98 Reported: 12/17/98

Discard: 12/17/98

MW-27S-03 Grab Water Sample

RFW W.O. #02687-007-002-0022-00

Moss-American Superfund Site - Milwaukee, WI

MW27S SDG#: MOS05-05

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
PAH's in Water				
3280	Naphthalene	N.D.	0.77	ug/l
3281	Acenaphthylene	N.D.	0.77	ug/l
3282	Acenaphthene	N.D.	0.77	ug/l
3283	Fluorene	N.D.	0.16	ug/l
3284	Phenanthrene	0.077 J	0.044	ug/l
3285	Anthracene	N.D.	0.030	ug/l
3286	Fluoranthene	0.020 J	0.019	ug/l
3287	Pyrene	N.D.	0.17	ug/l
3288	Benzo(a)anthracene	N.D.	0.017	ug/l
3289	Chrysene	N.D.	0.057	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.034	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.026	ug/l
3292	Benzo(a)pyrene	N.D.	0.021	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.045	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	0.063 J	0.062	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2661

See reverse side for explanation of symbols and abbreviations

2216 Rev. 8/1/97



**LLI Sample No. WW 3010836**  
 Collected: 10/ 1/98 at 09:15 by JA

Submitted: 10/ 2/98 Reported: 12/17/98  
 Discard: 12/17/98

MW-27S-03 Grab Water Sample  
 RFW W.O. #02687-007-002-0022-00  
 Moss-American Superfund Site - Milwaukee, WI  
 MW27S SDG#: MOS05-05

Account No: 07802  
 Kerr-McGee Corporation  
 P.O. Box 25861  
 Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
 Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

Questions? Contact your Client Services Representative  
 Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
 Michele Turner, B.A.  
 Manager, Volatiles



Lancaster Laboratories  
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 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3010836**

Collected: 10/01/98 at 09:15 by JA

Submitted: 10/02/98

Account No: 07802
Kerr-McGee Corporation
P.O. Box 25861
Oklahoma City OK 73125

MW-27S-03 Grab Water Sample  
 RFW W.O. #02687-007-002-0022-00  
 Moss-American Superfund Site - Milwaukee, WI  
 MW27S SDG#: MOS05-05

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		
			TRIAL ID	DATE AND TIME	ANALYST
1861	PAH's in Water	SW-846 8310	1	10/13/98 1629	Michele J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1	10/06/98 0030	Darin P. Wagner
8213	BTEX (8021)	SW-846 8021B	1	10/05/98 1921	Jodie L. Buckwalter



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 PO Box 12425  
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**LLI Sample No. 3010836**  
 MW-27S-03 Grab Water Sample  
 RFW W.O. #02687-007-002-0022-00  
 Moss-American Superfund Site - Milwaukee, WI

Group No. 634510  
 Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
1861 PAH's in Water		Batch: 982740006B									
-----											
3280	Naphthalene 0.77 ug/l	N.D.		87	94	8	82	80	3	37	120
3281	Acenaphthylene 0.77 ug/l	N.D.		95	97	2	91	90	1	41	135
3282	Acenaphthene 0.77 ug/l	N.D.		94	96	2	89	88	1	38	135
3283	Fluorene 0.16 ug/l	N.D.		98	99	1	95	95	0	41	140
3284	Phenanthrene 0.044 ug/l	N.D.		95	95	0	95	96	0	48	152
3285	Anthracene 0.030 ug/l	N.D.		86	86	1	82	83	1	42	143
3286	Fluoranthene 0.019 ug/l	N.D.		99	98	1	97	97	0	48	155
3287	Pyrene 0.17 ug/l	N.D.		106	105	2	101	101	0	51	146
3288	Benzo(a)anthracene 0.017 ug/l	N.D.		98	94	3	94	94	0	52	146
3289	Chrysene 0.057 ug/l	N.D.		96	94	2	99	99	0	56	145
3290	Benzo(b)fluoranthene 0.034 ug/l	N.D.		100	93	7	100	100	1	59	141
3291	Benzo(k)fluoranthene 0.026 ug/l	N.D.		102	96	6	94	94	0	60	137
3292	Benzo(a)pyrene 0.021 ug/l	N.D.		99	88	12	84	80	5	42	158
3293	Dibenzo(a,h)anthracene 0.045 ug/l	N.D.		99	94	6	95	96	1	49	142
3294	Benzo(g,h,i)perylene 0.095 ug/l	N.D.		101	96	5	97	95	2	46	148
3295	Indeno(1,2,3-cd)pyrene 0.062 ug/l	N.D.		96	93	3	97	95	2	64	134
-----											
8213 BTEX (8021)		Batch: 98278A65									
-----											
0776	Benzene 0.2 ug/l	N.D.		103	103	0	96			81	124
0777	Toluene 0.2 ug/l	N.D.		103	100	2	97			84	119
0778	Ethylbenzene 0.2 ug/l	N.D.		102	97	4	96			82	118
0779	Total Xylenes 0.6 ug/l	N.D.		102	97	4	97			81	120



Lancaster Laboratories  
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**LLI Sample No. 3010836**  
 MW-27S-03 Grab Water Sample  
 RFW W.O. #02687-007-002-0022-00  
 Moss-American Superfund Site - Milwaukee, WI

Group No. 634510  
 Kerr-McGee Corporation

### SURROGATE SUMMARY

	TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS	
				LOW	HIGH
1861 PAH's in Water		Nitrobenz	91	22	131
		Triphenyle	100	60	120
8213 BTEX (8021)		TFT	96	77	125



Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
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 717-656-2300 Fax 717-656-2651

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2216 Rev. 8/4/97







# Lancaster Laboratories

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LLI Sample No. **WW 3009887**

Collected: 9/30/98 at 17:10 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

MW-28S-03 Unspiked Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
28SXX SDG#: MOS04-20BKG

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	METHOD	
		RESULTS	DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300  
13:14:26 D 0003 6 REP 128410 634300  
050 0.00 00021753 DIS000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
P.O. Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2661





LLI Sample No. WW 3009887

Collected: 9/30/98 at 17:10 by JA

Submitted: 10/ 1/98 Reported: 12/17/98

Discard: 12/17/98

MW-28S-03 Unspiked Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
28SXX SDG#: MOS04-20BKG

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD	DETECTION LIMIT UNITS
PAH's in Water				
3280	Naphthalene	N.D.	0.77	ug/l
3281	Acenaphthylene	N.D.	0.77	ug/l
3282	Acenaphthene	N.D.	0.77	ug/l
3283	Fluorene	N.D.	0.16	ug/l
3284	Phenanthrene	N.D.	0.044	ug/l
3285	Anthracene	N.D.	0.030	ug/l
3286	Fluoranthene	N.D.	0.019	ug/l
3287	Pyrene	N.D.	0.17	ug/l
3288	Benzo(a)anthracene	N.D.	0.017	ug/l
3289	Chrysene	0.062 J	0.057	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.034	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.026	ug/l
3292	Benzo(a)pyrene	N.D.	0.021	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.045	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.061	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2600

See reverse side for explanation of symbols and abbreviations

221c Rev. 8/2/97





**LLI Sample No. WW 3009887**

Collected: 9/30/98 at 17:10 by JA

Submitted: 10/ 1/98 Reported: 12/17/98

Discard: 12/17/98

MW-28S-03 Unspiked Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
28SXX SDG#: MOS04-20BKG

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	RESULTS	METHOD	
			DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Park  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009887**

Collected: 09/30/98 at 17:10 by JA

Submitted: 10/01/98

Account No: 07802
Kerr-McGee Corporation
P.O. Box 25861
Oklahoma City OK 73125

MW-28S-03 Unspiked Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
28SXX SDG#: MOS04-20BKG

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		
			TRIAL ID	DATE AND TIME	ANALYST
1861	PAH's in Water	SW-846 8310	1	10/13/98 0159	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1	10/02/98 1000	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021B	1	10/05/98 1729	Jodie L. Buckwalter



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2200 Fax: 717-656-2667





**LLI Sample No. 3009887**  
MW-28S-03 Unspiked Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634300  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH	
----- 1861 PAH's in Water		Batch: 982750001A										
3280	Naphthalene 0.77 ug/l	N.D.		94	88	7	86			37	120	
3281	Acenaphthylene 0.77 ug/l	N.D.		98	92	7	90			41	135	
3282	Acenaphthene 0.77 ug/l	N.D.		99	93	7	88			38	135	
3283	Fluorene 0.16 ug/l	N.D.		103	97	7	94			41	140	
3284	Phenanthrene 0.044 ug/l	N.D.		102	97	5	96			48	152	
3285	Anthracene 0.030 ug/l	N.D.		90	86	4	85			42	143	
3286	Fluoranthene 0.019 ug/l	N.D.		103	99	4	98			48	155	
3287	Pyrene 0.17 ug/l	N.D.		107	105	2	101			51	146	
3288	Benzo(a)anthracene 0.017 ug/l	N.D.		100	98	3	96			52	146	
3289	Chrysene 0.057 ug/l	0.107 J ug/l		104	102	2	99			56	145	
3290	Benzo(b)fluoranthene 0.034 ug/l	N.D.		110	106	3	101			59	141	
3291	Benzo(k)fluoranthene 0.026 ug/l	N.D.		103	99	4	96			60	137	
3292	Benzo(a)pyrene 0.021 ug/l	N.D.		107	100	7	98			42	158	
3293	Dibenzo(a,h)anthracene 0.045 ug/l	N.D.		104	101	3	97			49	142	
3294	Benzo(g,h,i)perylene 0.095 ug/l	N.D.		107	104	3	102			46	148	
3295	Indeno(1,2,3-cd)pyrene 0.061 ug/l	N.D.		107	104	4	99			64	134	
----- 8213 BTEX (8021)		Batch: 98278A65										
0776	Benzene 0.2 ug/l	N.D.		103	103	0	96			81	124	
0777	Toluene 0.2 ug/l	N.D.		103	100	2	97			84	119	
0778	Ethylbenzene 0.2 ug/l	N.D.		102	97	4	96			82	118	
0779	Total Xylenes 0.6 ug/l	N.D.		102	97	4	97			81	120	





**LLI Sample No. 3009887**  
MW-28S-03 Unspiked Grab Water Sample  
Moss-American Superfund Site - Milwaukee, WI

Group No. 634300  
Kerr-McGee Corporation

### SURROGATE SUMMARY

TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS	
			LOW	HIGH
1861 PAH's in Water	Nitrobenz	94	22	131
	Triphenyle	98	60	120
8213 BTEX (8021)	TFT	94	77	125



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LLI Sample No. WW 3009888

Collected: 9/30/98 at 17:10 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

MW-28S-03 Matrix Spike Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
28SXX SDG#: MOS04-20MS

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	METHOD	
		RESULTS	DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300  
13:15:55 D 0003 6 REP 128410 634300  
050 0.00 00021753 DIS000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2660





LLI Sample No. WW 3009888

Collected: 9/30/98 at 17:10 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

MW-28S-03 Matrix Spike Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
28SXX SDG#: MOS04-20MS


Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
PAH's in Water				
3280	Naphthalene	181.	0.77	ug/l
3281	Acenaphthylene	189.	0.77	ug/l
3282	Acenaphthene	190.	0.77	ug/l
3283	Fluorene	19.8	0.16	ug/l
3284	Phenanthrene	5.86	0.044	ug/l
3285	Anthracene	2.58	0.030	ug/l
3286	Fluoranthene	2.99	0.019	ug/l
3287	Pyrene	20.6	0.17	ug/l
3288	Benzo(a)anthracene	1.45	0.017	ug/l
3289	Chrysene	6.08	0.057	ug/l
3290	Benzo(b)fluoranthene	1.27	0.034	ug/l
3291	Benzo(k)fluoranthene	1.19	0.026	ug/l
3292	Benzo(a)pyrene	1.54	0.021	ug/l
3293	Dibenzo(a,h)anthracene	3.00	0.045	ug/l
3294	Benzo(g,h,i)perylene	12.3	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	6.18	0.061	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs

MEMBER  
  
Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2581

See reverse side for explanation of symbols and abbreviations.

2216 Rev 8/2/97







LLI Sample No. WW 3009888

Collected: 9/30/98 at 17:10 by JA

Submitted: 10/ 1/98 Reported: 12/17/98

Discard: 12/17/98

MW-28S-03 Matrix Spike Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
28SXX SDG#: MOS04-20MS

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION	LIMIT UNITS
BTEX (8021)				
0776	Benzene	21.	0.2	ug/l
0777	Toluene	21.	0.2	ug/l
0778	Ethylbenzene	20.	0.2	ug/l
0779	Total Xylenes	61.	0.6	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2687





**LLI Sample No. WW 3009888**

Collected: 09/30/98 at 17:10 by JA

Submitted: 10/01/98

Account No: 07802 Kerr-McGee Corporation P.O. Box 25861 Oklahoma City OK 73125
---

MW-28S-03 Matrix Spike Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
28SXX SDG#: MOS04-20MS

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		
			TRIAL ID	DATE AND TIME	ANALYST
1861	PAH's in Water	SW-846 8310	1	10/13/98 0321	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1	10/02/98 1000	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021B	1	10/05/98 1807	Jodie L. Buckwalter



Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, Pa 17605-2425  
 TEL: 656-2300 Fax: 717-656-2881





**LLI Sample No. 3009888**  
MW-28S-03 Matrix Spike Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634300  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
1861 PAH's in Water		Batch: 982750001A									
-----											
3280	Naphthalene										
	0.77 ug/l	N.D.		94	88	7	86			37	120
3281	Acenaphthylene										
	0.77 ug/l	N.D.		98	92	7	90			41	135
3282	Acenaphthene										
	0.77 ug/l	N.D.		99	93	7	88			38	135
3283	Fluorene										
	0.16 ug/l	N.D.		103	97	7	94			41	140
3284	Phenanthrene										
	0.044 ug/l	N.D.		102	97	5	96			48	152
3285	Anthracene										
	0.030 ug/l	N.D.		90	86	4	85			42	143
3286	Fluoranthene										
	0.019 ug/l	N.D.		103	99	4	98			48	155
3287	Pyrene										
	0.17 ug/l	N.D.		107	105	2	101			51	146
3288	Benzo(a)anthracene										
	0.017 ug/l	N.D.		100	98	3	96			52	146
3289	Chrysene										
	0.057 ug/l	0.107 J ug/l		104	102	2	99			56	145
3290	Benzo(b)fluoranthene										
	0.034 ug/l	N.D.		110	106	3	101			59	141
3291	Benzo(k)fluoranthene										
	0.026 ug/l	N.D.		103	99	4	96			60	137
3292	Benzo(a)pyrene										
	0.021 ug/l	N.D.		107	100	7	98			42	158
3293	Dibenzo(a,h)anthracene										
	0.045 ug/l	N.D.		104	101	3	97			49	142
3294	Benzo(g,h,i)perylene										
	0.095 ug/l	N.D.		107	104	3	102			46	148
3295	Indeno(1,2,3-cd)pyrene										
	0.061 ug/l	N.D.		107	104	4	99			64	134
-----											
8213 BTEX (8021)		Batch: 98278A65									
-----											
0776	Benzene										
	0.2 ug/l	N.D.		103	103	0	96			81	124
0777	Toluene										
	0.2 ug/l	N.D.		103	100	2	97			84	119
0778	Ethylbenzene										
	0.2 ug/l	N.D.		102	97	4	96			82	118
0779	Total Xylenes										
	0.6 ug/l	N.D.		102	97	4	97			81	120



Lancaster Laboratories  
2425 New Howard Pkwy  
PO Box 12425  
Lancaster, PA 17606-2425  
717-650-2500 Fax: 717-650-2687





**LLI Sample No. 3009888**  
MW-28S-03 Matrix Spike Grab Water Sample  
Moss-American Superfund Site - Milwaukee, WI

Group No. 634300  
Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
1861 PAH's in Water		Nitrobenz	98	22	131
		Triphenyle	103	60	120
8213 BTEX (8021)		TFT	94	77	125



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2581

See reverse side for explanation of symbols and abbreviations.

1211 Rev. 5/21/97





LLI Sample No. WW 3009889

Collected: 9/30/98 at 17:10 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

MW-28S-03 Matrix Spike Duplicate Grab Water  
Sample  
Moss-American Superfund Site - Milwaukee, WI  
28SXX SDG#: MOS04-20MSD\*

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED	
		RESULTS	METHOD DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation      ATTN: Garet Van de Steeg, PhD  
 1 COPY TO Roy F. Weston              ATTN: Mr. Tom Graan  
 1 COPY TO Data Package Group

Questions? Contact your Client Services Representative  
 Donald J. Nazario at (717) 656-2300  
 13:17:51 D 0003 6 REP 128410 634300  
 050 0.00 00021753 DIS000

Respectfully Submitted  
 Jenifer E. Hess, B.S.  
 Group Leader Pesticides/PCBs

MEMBER  
  
 Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-0425  
 717-656-2300 Fax 717-656-2681



**LLI Sample No. WW 3009889**

Collected: 9/30/98 at 17:10 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98MW-28S-03 Matrix Spike Duplicate Grab Water  
Sample  
Moss-American Superfund Site - Milwaukee, WI  
28SXX SDG#: MOS04-20MSD\*Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		UNITS
		RESULTS	METHOD DETECTION LIMIT	
PAH's in Water				
3280	Naphthalene	169.	0.77	ug/l
3281	Acenaphthylene	177.	0.77	ug/l
3282	Acenaphthene	180.	0.77	ug/l
3283	Fluorene	18.6	0.16	ug/l
3284	Phenanthrene	5.60	0.044	ug/l
3285	Anthracene	2.47	0.030	ug/l
3286	Fluoranthene	2.87	0.019	ug/l
3287	Pyrene	20.1	0.17	ug/l
3288	Benzo(a)anthracene	1.41	0.017	ug/l
3289	Chrysene	5.93	0.056	ug/l
3290	Benzo(b)fluoranthene	1.23	0.033	ug/l
3291	Benzo(k)fluoranthene	1.14	0.026	ug/l
3292	Benzo(a)pyrene	1.43	0.021	ug/l
3293	Dibenzo(a,h)anthracene	2.92	0.045	ug/l
3294	Benzo(g,h,i)perylene	12.0	0.095	ug/l
3295	Indeno(1,2,3-cd)pyrene	5.97	0.061	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
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See reverse side for explanation of symbols and abbreviations.

2216 Rev 8/4/97



**LLI Sample No. WW 3009889**

Collected: 9/30/98 at 17:10 by JA

Submitted: 10/ 1/98 Reported: 12/17/98

Discard: 12/17/98

MW-28S-03 Matrix Spike Duplicate Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
28SXX SDG#: MOS04-20MSD\*

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	RESULTS	METHOD	
			DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	21.	0.2	ug/l
0777	Toluene	20.	0.2	ug/l
0778	Ethylbenzene	19.	0.2	ug/l
0779	Total Xylenes	58.	0.6	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2651





**LLI Sample No. WW 3009889**

Collected: 09/30/98 at 17:10 by JA

Submitted: 10/01/98

Account No: 07802 Kerr-McGee Corporation P.O. Box 25861 Oklahoma City OK 73125
---

MW-28S-03 Matrix Spike Duplicate Grab Water Sample  
 Moss-American Superfund Site - Milwaukee, WI  
 28SXX SDG#: MOS04-20MSD\*

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		ANALYST
			TRIAL ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1	10/13/98 0341	Michelle J. Kolodziejki
3337	PAH Water Extraction	SW-846 3510C	1	10/02/98 1000	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021B	1	10/05/98 1844	Jodie L. Buckwalter



Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax 717-656-2681







**LLI Sample No. 3009889**  
 MW-28S-03 Matrix Spike Duplicate Grab Water Sample  
 Moss-American Superfund Site - Milwaukee, WI

Group No. 634300  
 Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
1861 PAH's in Water		Batch: 982750001A									
-----											
3280	Naphthalene 0.77 ug/l	N.D.		94	88	7	86			37	120
3281	Acenaphthylene 0.77 ug/l	N.D.		98	92	7	90			41	135
3282	Acenaphthene 0.77 ug/l	N.D.		99	93	7	88			38	135
3283	Fluorene 0.16 ug/l	N.D.		103	97	7	94			41	140
3284	Phenanthrene 0.044 ug/l	N.D.		102	97	5	96			48	152
3285	Anthracene 0.030 ug/l	N.D.		90	86	4	85			42	143
3286	Fluoranthene 0.019 ug/l	N.D.		103	99	4	98			48	155
3287	Pyrene 0.17 ug/l	N.D.		107	105	2	101			51	146
3288	Benzo(a)anthracene 0.017 ug/l	N.D.		100	98	3	96			52	146
3289	Chrysene 0.056 ug/l	0.107 J ug/l		104	102	2	99			56	145
3290	Benzo(b)fluoranthene 0.033 ug/l	N.D.		110	106	3	101			59	141
3291	Benzo(k)fluoranthene 0.026 ug/l	N.D.		103	99	4	96			60	137
3292	Benzo(a)pyrene 0.021 ug/l	N.D.		107	100	7	98			42	158
3293	Dibenzo(a,h)anthracene 0.045 ug/l	N.D.		104	101	3	97			49	142
3294	Benzo(g,h,i)perylene 0.095 ug/l	N.D.		107	104	3	102			46	148
3295	Indeno(1,2,3-cd)pyrene 0.061 ug/l	N.D.		107	104	4	99			64	134
-----											
8213 BTEX (8021)		Batch: 98278A65									
-----											
0776	Benzene 0.2 ug/l	N.D.		103	103	0	96			81	124
0777	Toluene 0.2 ug/l	N.D.		103	100	2	97			84	119
0778	Ethylbenzene 0.2 ug/l	N.D.		102	97	4	96			82	118
0779	Total Xylenes 0.6 ug/l	N.D.		102	97	4	97			81	120



Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax 717-656-2681





**LLI Sample No. 3009889**  
MW-28S-03 Matrix Spike Duplicate Grab Water  
Sample  
Moss-American Superfund Site - Milwaukee, WI

Group No. 634300  
Kerr-McGee Corporation

TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS	
			LOW	HIGH
1861 PAH's in Water	Nitrobenz	91	22	131
	Triphenyle	102	60	120
8213 BTEX (8021)	TFT	96	77	125



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681

See reverse side for explanation of symbols and abbreviations.





LLI Sample No. WW 3009885

Collected: 9/30/98 at 16:15 by JA

Submitted: 10/ 1/98 Reported: 12/17/98

Discard: 12/17/98

MW-29S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
29SXX SDG#: MOS04-18

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	RESULTS	METHOD	
			DETECTION LIMIT	UNITS
1861	PAH's in Water		See Page	2
8213	BTEX (8021)		See Page	3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative

Donald J. Nazario at (717) 656-2300  
13:11:15 D 0003 6 REP 128410 634300  
050 0.00 00021753 DIS000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
1425 New Holland Blvd  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2667





**LLI Sample No. WW 3009885**  
 Collected: 9/30/98 at 16:15 by JA

Account No: 07802  
 Kerr-McGee Corporation  
 P.O. Box 25861  
 Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
 Rel.

Submitted: 10/ 1/98 Reported: 12/17/98  
 Discard: 12/17/98

MW-29S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
 29SXX SDG#: MOS04-18

AS RECEIVED  
 METHOD  
 RESULTS      DETECTION LIMIT UNITS

CAT  
 NO.      ANALYSIS NAME

PAH's in Water

3280	Naphthalene	N.D.	0.82	ug/l
3281	Acenaphthylene	N.D.	0.82	ug/l
3282	Acenaphthene	N.D.	0.82	ug/l
3283	Fluorene	N.D.	0.17	ug/l
3284	Phenanthrene	0.053 J	0.047	ug/l
3285	Anthracene	0.103 J	0.032	ug/l
3286	Fluoranthene	0.65	0.020	ug/l
3287	Pyrene	0.42 J	0.18	ug/l
3288	Benzo(a)anthracene	0.071 J	0.018	ug/l
3289	Chrysene	0.070 J	0.060	ug/l
3290	Benzo(b)fluoranthene	N.D.	0.036	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.028	ug/l
3292	Benzo(a)pyrene	N.D.	0.022	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.048	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.10	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.065	ug/l

Questions? Contact your Client Services Representative  
 Donald J. Nazario                      at (717) 656-2300

Respectfully Submitted  
 Jenifer E. Hess, B.S.  
 Group Leader Pesticides/PCBs



Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax 717-656-2637





**LLI Sample No. WW 3009885**

Collected: 9/30/98 at 16:15 by JA

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

MW-29S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
29SXX SDG#: MOS04-18

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	RESULTS	METHOD	
			DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	1.	ug/l
0778	Ethylbenzene	N.D.	1.	ug/l
0779	Total Xylenes	N.D.	3.	ug/l

Due to the presence of interferents near their retention times, normal reporting limits were not attained for toluene, ethylbenzene, and total xylenes.

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
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717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009885**

Collected: 09/30/98 at 16:15 by JA

Submitted: 10/01/98

MW-29S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
29SXX SDG#: MOS04-18

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS		ANALYST
				ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1		10/13/98 0420	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1		10/02/98 1000	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021B	1		10/06/98 0208	Jodie L. Buckwalter



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
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**LLI Sample No. 3009885**

MW-29S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634300  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH	
-----		Batch: 982750001A										
1861 PAH's in Water												
3280	Naphthalene											
	0.82 ug/l	N.D.		94	88	7	86			37	120	
3281	Acenaphthylene											
	0.82 ug/l	N.D.		98	92	7	90			41	135	
3282	Acenaphthene											
	0.82 ug/l	N.D.		99	93	7	88			38	135	
3283	Fluorene											
	0.17 ug/l	N.D.		103	97	7	94			41	140	
3284	Phenanthrene											
	0.047 ug/l	N.D.		102	97	5	96			48	152	
3285	Anthracene											
	0.032 ug/l	N.D.		90	86	4	85			42	143	
3286	Fluoranthene											
	0.020 ug/l	N.D.		103	99	4	98			48	155	
3287	Pyrene											
	0.18 ug/l	N.D.		107	105	2	101			51	146	
3288	Benzo(a)anthracene											
	0.018 ug/l	N.D.		100	98	3	96			52	146	
3289	Chrysene											
	0.060 ug/l	0.107 J ug/l		104	102	2	99			56	145	
3290	Benzo(b)fluoranthene											
	0.036 ug/l	N.D.		110	106	3	101			59	141	
3291	Benzo(k)fluoranthene											
	0.028 ug/l	N.D.		103	99	4	96			60	137	
3292	Benzo(a)pyrene											
	0.022 ug/l	N.D.		107	100	7	98			42	158	
3293	Dibenzo(a,h)anthracene											
	0.048 ug/l	N.D.		104	101	3	97			49	142	
3294	Benzo(g,h,i)perylene											
	0.10 ug/l	N.D.		107	104	3	102			46	148	
3295	Indeno(1,2,3-cd)pyrene											
	0.065 ug/l	N.D.		107	104	4	99			64	134	
-----		Batch: 98278A65										
8213 BTEX (8021)												
0776	Benzene											
	0.2 ug/l	N.D.		103	103	0	96			81	124	
0777	Toluene											
	1. ug/l	N.D.		103	100	2	97			84	119	
0778	Ethylbenzene											
	1. ug/l	N.D.		102	97	4	96			82	118	
0779	Total Xylenes											
	3. ug/l	N.D.		102	97	4	97			81	120	



Lancaster Laboratories  
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Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681

See reverse side for explanation of symbols and abbreviations

22 K Inv. 8/24/97





**LLI Sample No. 3009885**  
MW-29S-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634300  
Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
1861 PAH's in Water		Nitrobenz	96	22	131
		Triphenyle	106	60	120
8213 BTEX (8021)		TFT	94	77	125



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LLI Sample No. WW 3010837

Collected: 10/ 1/98 at 10:10 by JA

Submitted: 10/ 2/98 Reported: 12/17/98

Discard: 12/17/98

TW-05-03 Grab Water Sample  
RfW W.O. #02687-007-002-0022-00  
Moss-American Superfund Site - Milwaukee, WI  
TW05- SDG#: MOS05-06

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

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Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	METHOD	
		RESULTS	DETECTION LIMIT UNITS
1861	PAH's in Water		See Page 2
8213	BTEX (8021)		See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300  
13:35:09 D 0003 3 REP 128410 634510  
050 0.00 00021753 DIS000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3010837**

Collected: 10/ 1/98 at 10:10 by JA

Submitted: 10/ 2/98 Reported: 12/17/98  
Discard: 12/17/98

TW-05-03 Grab Water Sample  
RfW W.O. #02687-007-002-0022-00  
Moss-American Superfund Site - Milwaukee, WI  
TW05- SDG#: MOS05-06

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		METHOD	
		RESULTS		DETECTION	LIMIT UNITS
PAH's in Water					
3280	Naphthalene	19.	J	15.	ug/l
3281	Acenaphthylene	21.	J	15.	ug/l
3282	Acenaphthene	140.	J	15.	ug/l
3283	Fluorene	90.		3.3	ug/l
3284	Phenanthrene	5.59	J	0.89	ug/l
3285	Anthracene	11.8		0.60	ug/l
3286	Fluoranthene	59.7		0.39	ug/l
3287	Pyrene	64.		3.5	ug/l
3288	Benzo(a)anthracene	12.8		0.35	ug/l
3289	Chrysene	14.0		1.1	ug/l
3290	Benzo(b)fluoranthene	4.5		0.68	ug/l
3291	Benzo(k)fluoranthene	2.6		0.52	ug/l
3292	Benzo(a)pyrene	3.4		0.43	ug/l
3293	Dibenzo(a,h)anthracene	N.D.		0.91	ug/l
3294	Benzo(g,h,i)perylene	N.D.		1.9	ug/l
3295	Indeno(1,2,3-cd)pyrene	2.7	J	1.2	ug/l

Due to the dilution required for analysis, accurate surrogate recoveries could not be determined for this sample.

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
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Lancaster, PA 17605-2425  
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LLI Sample No. WW 3010837

Collected: 10/ 1/98 at 10:10 by JA

Submitted: 10/ 2/98 Reported: 12/17/98

Discard: 12/17/98

TW-05-03 Grab Water Sample  
 RFW W.O. #02687-007-002-0022-00  
 Moss-American Superfund Site - Milwaukee, WI  
 TW05- SDG#: MOS05-06

Account No: 07802  
 Kerr-McGee Corporation  
 P.O. Box 25861  
 Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
 Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	METHOD		
		RESULTS	DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt.

Questions? Contact your Client Services Representative  
 Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
 Michele Turner, B.A.  
 Manager, Volatiles



Lancaster Laboratories  
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 PO Box 12425  
 Lancaster PA 17605-2425  
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### LLI Sample No. WW 3010837

Collected: 10/01/98 at 10:10 by JA

Submitted: 10/02/98

Account No: 07802
Kerr-McGee Corporation
P.O. Box 25861
Oklahoma City OK 73125

TW-05-03 Grab Water Sample  
 RFW W.O. #02687-007-002-0022-00  
 Moss-American Superfund Site - Milwaukee, WI  
 TW05- SDG#: MOS05-06

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS		ANALYST
				ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1		10/13/98 1652	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1		10/06/98 0030	Darin P. Wagner
8213	BTEX (8021)	SW-846 8021B	1		10/05/98 1958	Jodie L. Buckwalter



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**LLI Sample No. 3010837**  
 TW-05-03 Grab Water Sample  
 RFW W.O. #02687-007-002-0022-00  
 Moss-American Superfund Site - Milwaukee, WI

Group No. 634510  
 Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH	
-----												
1861 PAH's in Water			Batch: 982740006B									
-----												
3280	Naphthalene											
	15. ug/l	N.D.		87	94	8	82	80	3	37	120	
3281	Acenaphthylene											
	15. ug/l	N.D.		95	97	2	91	90	1	41	135	
3282	Acenaphthene											
	15. ug/l	N.D.		94	96	2	89	88	1	38	135	
3283	Fluorene											
	3.3 ug/l	N.D.		98	99	1	95	95	0	41	140	
3284	Phenanthrene											
	0.89 ug/l	N.D.		95	95	0	95	96	0	48	152	
3285	Anthracene											
	0.60 ug/l	N.D.		86	86	1	82	83	1	42	143	
3286	Fluoranthene											
	0.39 ug/l	N.D.		99	98	1	97	97	0	48	155	
3287	Pyrene											
	3.5 ug/l	N.D.		106	105	2	101	101	0	51	146	
3288	Benzo(a)anthracene											
	0.35 ug/l	N.D.		98	94	3	94	94	0	52	146	
3289	Chrysene											
	1.1 ug/l	N.D.		96	94	2	99	99	0	56	145	
3290	Benzo(b)fluoranthene											
	0.68 ug/l	N.D.		100	93	7	100	100	1	59	141	
3291	Benzo(k)fluoranthene											
	0.52 ug/l	N.D.		102	96	6	94	94	0	60	137	
3292	Benzo(a)pyrene											
	0.43 ug/l	N.D.		99	88	12	84	80	5	42	158	
3293	Dibenzo(a,h)anthracene											
	0.91 ug/l	N.D.		99	94	6	95	96	1	49	142	
3294	Benzo(g,h,i)perylene											
	1.9 ug/l	N.D.		101	96	5	97	95	2	46	148	
3295	Indeno(1,2,3-cd)pyrene											
	1.2 ug/l	N.D.		96	93	3	97	95	2	64	134	
-----												
8213 BTEX (8021)			Batch: 98278A65									
-----												
0776	Benzene											
	0.2 ug/l	N.D.		103	103	0	96			81	124	
0777	Toluene											
	0.2 ug/l	N.D.		103	100	2	97			84	119	
0778	Ethylbenzene											
	0.2 ug/l	N.D.		102	97	4	96			82	118	
0779	Total Xylenes											
	0.6 ug/l	N.D.		102	97	4	97			81	120	



Lancaster Laboratories  
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**LLI Sample No. 3010837**  
 TW-05-03 Grab Water Sample  
 RFW W.O. #02687-007-002-0022-00  
 Moss-American Superfund Site - Milwaukee, WI

Group No. 634510  
 Kerr-McGee Corporation

SURROGATE SUMMARY

	TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS	
				LOW	HIGH
1861 PAH's in Water		Nitrobenz	63	22	131
		Triphenyle	462	60	120
8213 BTEX (8021)		TFT	97	77	125



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See reverse side for explanation of symbols and abbreviations

2216 Rev. 9/4/97



**LLI Sample No. WW 3009014**

Collected: 9/29/98 at 11:00 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

TW-09-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W0903 SDG#: MOS04-05

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		UNITS
		RESULTS	METHOD DETECTION LIMIT	
1861	PAH's in Water			See Page 2
8213	BTEX (8021)			See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300  
19:27:52 D 0003 16 128410 634092  
232 0.00 00021753 ASR000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. WW 3009014**

Collected: 9/29/98 at 11:00 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

TW-09-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W0903 SDG#: MOS04-05

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Re1.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD	DETECTION LIMIT UNITS
PAH's in Water				
3280	Naphthalene	580.	15.	ug/l
3281	Acenaphthylene	540.	15.	ug/l
3282	Acenaphthene	370.	15.	ug/l
3283	Fluorene	N.D.	3.3	ug/l
3284	Phenanthrene	N.D.	0.88	ug/l
3285	Anthracene	N.D.	0.59	ug/l
3286	Fluoranthene	N.D.	0.38	ug/l
3287	Pyrene	9.8	3.5	ug/l
3288	Benzo(a)anthracene	6.6	0.35	ug/l
3289	Chrysene	68.1	1.1	ug/l
3290	Benzo(b)fluoranthene	24.3	0.67	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.52	ug/l
3292	Benzo(a)pyrene	4.4	0.42	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.90	ug/l
3294	Benzo(g,h,i)perylene	N.D.	1.9	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	1.2	ug/l

Due to the dilution required for analysis, accurate surrogate recoveries could not be determined for this sample.

*J. K. Hower*  
12/3/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681







## Lancaster Laboratories

A division of Thermo Analytical Inc.

LLI Sample No. WW 3009014

Collected: 9/29/98 at 11:00 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

TW-09-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W0903 SDG#: MOS04-05

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

### AS RECEIVED

CAT NO.	ANALYSIS NAME	RESULTS	METHOD	DETECTION LIMIT	UNITS
---------	---------------	---------	--------	-----------------	-------

BTEX (8021)

0776	Benzene	N.D.	2.	ug/l
0777	Toluene	3. J	2.	ug/l
0778	Ethylbenzene	10.	2.	ug/l
0779	Total Xylenes	40.	6.	ug/l

Due to the nature of the sample matrix, normal reporting limits were not attained.

*Alvarez*  
*12/3/98*

Questions? Contact your Client Services Representative  
at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681

See reverse side for explanation of symbols and abbreviations





**LLI Sample No. WW 3009014**

Collected: 09/29/98 at 11:00 by JA

Submitted: 09/30/98

TW-09-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
W0903 SDG#: MOS04-05

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS		ANALYST
				ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1		10/08/98 1845	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1		10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1		10/02/98 0500	Jodie L. Buckwalter



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681



**LLI Sample No. 3009014**

TW-09-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
-----											
1861 PAH's in Water		Batch: 982740006A									
-----											
3280	Naphthalene										
15.	ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene										
15.	ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene										
15.	ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene										
3.3	ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene										
0.88	ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene										
0.59	ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene										
0.38	ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene										
3.5	ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene										
0.35	ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene										
1.1	ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene										
0.67	ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene										
0.52	ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene										
0.42	ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene										
0.90	ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene										
1.9	ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene										
1.2	ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)		Batch: 98274A65									
-----											
0776	Benzene										
2.	ug/l	N.D.		105	102	3	107			81	124
0777	Toluene										
2.	ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene										
2.	ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes										
6.	ug/l	N.D.		106	102	4	106			81	120



Lancaster Laboratories  
2425 New Holland Pike  
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**LLI Sample No. 3009014**  
TW-09-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
1861 PAH's in Water		Nitrobenz	350	22	131
		Triphenyle	23	60	120
8213 BTEX (8021)		TFT	94	77	125



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See reverse side for explanation of symbols and abbreviations.

2216 Rev. 8/4/97





**LLI Sample No. WW 3009022**  
 Collected: 9/29/98 by JA

Submitted: 9/30/98 Reported: 10/19/98  
 Discard: 11/19/98

FD-01-03 Grab Water Sample

Account No: 07802  
 Kerr-McGee Corporation  
 P.O. Box 25861  
 Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
 Rel.

Moss-American Superfund Site - Milwaukee, WI  
 D0103 SDG#: MOS04-13

CAT NO.	ANALYSIS NAME	AS RECEIVED		METHOD	DETECTION LIMIT	UNITS
		RESULTS				
PAH's in Water						
3280	Naphthalene	4,660.	J	15.		ug/l
3281	Acenaphthylene	178.		0.77		ug/l
3282	Acenaphthene	130.		0.77		ug/l
3283	Fluorene	20.7		0.16		ug/l
3284	Phenanthrene	N.D.		0.044		ug/l
3285	Anthracene	N.D.		0.030		ug/l
3286	Fluoranthene	0.033	J	0.019		ug/l
3287	Pyrene	0.60	J	0.17		ug/l
3288	Benzo(a)anthracene	N.D.		0.017		ug/l
3289	Chrysene	0.094	J	0.057		ug/l
3290	Benzo(b)fluoranthene	N.D.		0.034		ug/l
3291	Benzo(k)fluoranthene	N.D.		0.026		ug/l
3292	Benzo(a)pyrene	N.D.		0.021		ug/l
3293	Dibenzo(a,h)anthracene	N.D.		0.045		ug/l
3294	Benzo(g,h,i)perylene	N.D.		0.095		ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.		0.062		ug/l

*T. Ballie  
1/3/99*

*Xerox  
1-2/198*

Questions? Contact your Client Services Representative  
 Kay G. Hower at (717) 656-2300

Respectfully Submitted  
 Jenifer E. Hess, B.S.  
 Group Leader Pesticides/PCBs



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**LLI Sample No. WW 3009022**  
 Collected: 9/29/98 by JA

Submitted: 9/30/98 Reported: 10/19/98  
 Discard: 11/19/98

FD-01-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
 D0103 SDG#: MOS04-13

Account No: 07802  
 Kerr-McGee Corporation  
 P.O. Box 25861  
 Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
 Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		METHOD	DETECTION LIMIT	UNITS
		RESULTS				
BTEX (8021)						
0776	Benzene	8.	J	2.	ug/l	
0777	Toluene	N.D.		2.	ug/l	
0778	Ethylbenzene	20.		2.	ug/l	
0779	Total Xylenes	70.		6.	ug/l	

Due to the nature of the sample matrix, normal reporting limits were not attained.

*L. Karolick*  
 10/31/98

Questions? Contact your Client Services Representative  
 Kay G. Hower at (717) 656-2300

Respectfully Submitted  
 Michele Turner, B.A.  
 Manager, Volatiles



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**LLI Sample No. WW 3009022**  
Collected: 09/29/98 by JA

Submitted: 09/30/98

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

FD-01-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
D0103 SDG#: MOS04-13

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		ANALYST
			TRIAL ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1	10/13/98 0021	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1	10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1	10/02/98 0541	Jodie L. Buckwalter



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**LLI Sample No. 3009022**  
FD-01-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
1861 PAH's in Water		Batch: 982740006A									
-----											
3280	Naphthalene										
	15. ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene										
	0.77 ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene										
	0.77 ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene										
	0.16 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene										
	0.044 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene										
	0.030 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene										
	0.019 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene										
	0.17 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene										
	0.017 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene										
	0.057 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene										
	0.034 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene										
	0.026 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene										
	0.021 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene										
	0.045 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene										
	0.095 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene										
	0.062 ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)		Batch: 98274A65									
-----											
0776	Benzene										
	2. ug/l	N.D.		105	102	3	107			81	124
0777	Toluene										
	2. ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene										
	2. ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes										
	6. ug/l	N.D.		106	102	4	106			81	120



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**LLI Sample No. WW 3009023**

Collected: 09/29/98 by JA

Submitted: 09/30/98

Account No: 07802 Kerr-McGee Corporation P.O. Box 25861 Oklahoma City OK 73125
---

FD-02-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
FD203 SDG#: MOS04-14

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS		ANALYST
				ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1		10/13/98 0041	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1		10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1		10/01/98 2230	Jodie L. Buckwalter



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**L.I. Sample No. 3009023**  
FD-02-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
1861 PAH's in Water		Batch: 982740006A									
-----											
3280	Naphthalene										
	0.76 ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene										
	0.76 ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene										
	0.76 ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene										
	0.16 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene										
	0.044 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene										
	0.030 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene										
	0.019 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene										
	0.17 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene										
	0.017 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene										
	0.056 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene										
	0.033 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene										
	0.026 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene										
	0.021 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene										
	0.045 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene										
	0.094 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene										
	0.061 ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)		Batch: 98274A65									
-----											
0776	Benzene										
	0.2 ug/l	N.D.		105	102	3	107			81	124
0777	Toluene										
	0.2 ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene										
	0.2 ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes										
	0.6 ug/l	N.D.		106	102	4	106			81	120



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**LLI Sample No. 3009023**  
FD-02-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
1861 PAH's in Water		Nitrobenz	94	22	131
		Triphenyle	99	60	120
8213 BTEX (8021)		TFT	99	77	125



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See reverse side for explanation of symbols and abbreviations

2216 Rev. 8/4/97





**LLI Sample No. WW 3009012**

Collected: 9/28/98 at 15:45 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

FB-01-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
B0103 SDG#: MOS04-03

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		LIMIT UNITS
		RESULTS	METHOD DETECTION	
1861	PAH's in Water			See Page 2
8213	BTEX (8021)			See Page 3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300  
19:26:12 D 0003 16 128410 634092  
232 0.00 00021753 ASR000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



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PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. WW 3009012**

Collected: 9/28/98 at 15:45 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

FB-01-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
B0103 SDG#: MOS04-03

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		UNITS
		RESULTS	METHOD DETECTION LIMIT	
PAH's in Water				
3280	Naphthalene	N.D. S	1.0	ug/l
3281	Acenaphthylene	N.D.	1.0	ug/l
3282	Acenaphthene	N.D.	1.0	ug/l
3283	Fluorene	N.D.	0.21	ug/l
3284	Phenanthrene	N.D.	0.056	ug/l
3285	Anthracene	N.D.	0.038	ug/l
3286	Fluoranthene	N.D.	0.025	ug/l
3287	Pyrene	N.D.	0.22	ug/l
3288	Benzo(a)anthracene	N.D.	0.022	ug/l
3289	Chrysene	0.085 J	0.072	ug/l
3290	Benzo(b)fluoranthene	N.D. S	0.043	ug/l
3291	Benzo(k)fluoranthene	N.D.	0.033	ug/l
3292	Benzo(a)pyrene	N.D.	0.027	ug/l
3293	Dibenzo(a,h)anthracene	N.D.	0.058	ug/l
3294	Benzo(g,h,i)perylene	N.D.	0.12	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.	0.079	ug/l

*J. Karabicki - 10/13/98*

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



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LLI Sample No. **WW 3009012**

Collected: 9/28/98 at 15:45 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

FB-01-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
B0103 SDG#: MOS04-03

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Re1.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

*J. Kerwick  
12/13/98*

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



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**LLI Sample No. WW 3009012**

Collected: 09/28/98 at 15:45 by JA

Submitted: 09/30/98

FB-01-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
B0103 SDG#: MOS04-03

Account No: 07802
Kerr-McGee Corporation
P.O. Box 25861
Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS		ANALYST
				ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1		10/13/98 2054	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1		10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1		10/01/98 1924	Jodie L. Buckwalter



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**LLI Sample No. 3009012**

FB-01-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
1861 PAH's in Water		Batch: 982740006A									
-----											
3280	Naphthalene										
	1.0 ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene										
	1.0 ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene										
	1.0 ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene										
	0.21 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene										
	0.056 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene										
	0.038 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene										
	0.025 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene										
	0.22 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene										
	0.022 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene										
	0.072 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene										
	0.043 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene										
	0.033 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene										
	0.027 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene										
	0.058 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene										
	0.12 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene										
	0.079 ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)		Batch: 98274A65									
-----											
0776	Benzene										
	0.2 ug/l	N.D.		105	102	3	107			81	124
0777	Toluene										
	0.2 ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene										
	0.2 ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes										
	0.6 ug/l	N.D.		106	102	4	106			81	120



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
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**LLI Sample No. 3009012**  
 FB-01-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
 Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
1861 PAH's in Water		Nitrobenz	56	22	131
		Triphenyle	75	60	120
8213 BTEX (8021)		TFT	96	77	125



Lancaster Laboratories  
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See reverse side for explanation of symbols and abbreviations

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**LLI Sample No. WW 3009024**

Collected: 9/29/98 at 18:25 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

FB-02-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
B0203 SDG#: MOS04-15

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		UNITS
		RESULTS	METHOD DETECTION LIMIT	
1861	PAH's in Water		See Page	2
8213	BTEX (8021)		See Page	3

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300  
19:38:48 D 0003 16 128410 634092  
232 0.00 00021753 ASR000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009024**

Collected: 9/29/98 at 18:25 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

FB-02-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
B0203 SDG#: MOS04-15

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		METHOD	
		RESULTS		DETECTION LIMIT	UNITS
PAH's in Water					
3280	Naphthalene	1.00	J	0.85	ug/l
3281	Acenaphthylene	N.D.		0.85	ug/l
3282	Acenaphthene	N.D.		0.85	ug/l
3283	Fluorene	N.D.		0.18	ug/l
3284	Phenanthrene	N.D.		0.049	ug/l
3285	Anthracene	N.D.		0.033	ug/l
3286	Fluoranthene	N.D.		0.021	ug/l
3287	Pyrene	N.D.		0.19	ug/l
3288	Benzo(a)anthracene	N.D.		0.019	ug/l
3289	Chrysene	N.D.		0.063	ug/l
3290	Benzo(b)fluoranthene	N.D.		0.037	ug/l
3291	Benzo(k)fluoranthene	N.D.		0.029	ug/l
3292	Benzo(a)pyrene	N.D.		0.023	ug/l
3293	Dibenzo(a,h)anthracene	N.D.		0.050	ug/l
3294	Benzo(g,h,i)perylene	N.D.		0.11	ug/l
3295	Indeno(1,2,3-cd)pyrene	N.D.		0.068	ug/l

*Alvarez*  
12/3/98

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





**LLI Sample No. WW 3009024**

Collected: 9/29/98 at 18:25 by JA

Submitted: 9/30/98 Reported: 10/19/98

Discard: 11/19/98

FB-02-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
B0203 SDG#: MOS04-15

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

*Y. Hower  
12/13/98*

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





**LLI Sample No. WW 3009024**

Collected: 09/29/98 at 18:25 by JA

Submitted: 09/30/98

Account No: 07802 Kerr-McGee Corporation P.O. Box 25861 Oklahoma City OK 73125
---

FB-02-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
B0203 SDG#: MOS04-15

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS		ANALYST
				ID	DATE AND TIME	
1861	PAH's in Water	SW-846 8310	1		10/13/98 0100	Michelle J. Kolodziejcki
3337	PAH Water Extraction	SW-846 3510C	1		10/01/98 1700	Nathaniel R. Kurtz
8213	BTEX (8021)	SW-846 8021A	1		10/01/98 2307	Jodie L. Buckwalter



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 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681





**LLI Sample No. 3009024**  
 FB-02-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
 Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
1861 PAH's in Water		Batch: 982740006A									
-----											
3280	Naphthalene 0.85 ug/l	N.D.		87	94	8	92			37	120
3281	Acenaphthylene 0.85 ug/l	N.D.		95	97	2	96			41	135
3282	Acenaphthene 0.85 ug/l	N.D.		94	96	2	95			38	135
3283	Fluorene 0.18 ug/l	0.32 J ug/l		98	99	1	98			41	140
3284	Phenanthrene 0.049 ug/l	N.D.		95	95	0	95			48	152
3285	Anthracene 0.033 ug/l	N.D.		86	86	1	86			42	143
3286	Fluoranthene 0.021 ug/l	N.D.		99	98	1	99			48	155
3287	Pyrene 0.19 ug/l	N.D.		106	105	2	106			51	146
3288	Benzo(a)anthracene 0.019 ug/l	N.D.		98	94	3	98			52	146
3289	Chrysene 0.063 ug/l	N.D.		96	94	2	98			56	145
3290	Benzo(b)fluoranthene 0.037 ug/l	N.D.		100	93	7	96			59	141
3291	Benzo(k)fluoranthene 0.029 ug/l	N.D.		102	96	6	98			60	137
3292	Benzo(a)pyrene 0.023 ug/l	N.D.		99	88	12	96			42	158
3293	Dibenzo(a,h)anthracene 0.050 ug/l	N.D.		99	94	6	95			49	142
3294	Benzo(g,h,i)perylene 0.11 ug/l	N.D.		101	96	5	102			46	148
3295	Indeno(1,2,3-cd)pyrene 0.068 ug/l	N.D.		96	93	3	94			64	134
-----											
8213 BTEX (8021)		Batch: 98274A65									
-----											
0776	Benzene 0.2 ug/l	N.D.		105	102	3	107			81	124
0777	Toluene 0.2 ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene 0.2 ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes 0.6 ug/l	N.D.		106	102	4	106			81	120



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 2425 New Holland Pike  
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 717-656-2300 Fax: 717-656-2681





**LLI Sample No. 3009024**  
FB-02-03 Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
1861 PAH's in Water		Nitrobenz	98	22	131
		Triphenyle	100	60	120
8213 BTEX (8021)		TFT	95	77	125



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LLI Sample No. WW 3009025  
Collected:

Submitted: 9/30/98 Reported: 10/19/98  
Discard: 11/19/98

Trip Blank Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
MASTB SDG#: MOS04-16TB

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO. ANALYSIS NAME

AS RECEIVED  
METHOD  
RESULTS DETECTION LIMIT UNITS

8213 BTEX (8021)

See Page 2

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300  
19:39:41 D 0003 16 128410 634092  
232 0.00 00005933 ASR000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681







**LLI Sample No. WW 3009025**

Collected:

Submitted: 9/30/98 Reported: 10/19/98  
Discard: 11/19/98

Trip Blank Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
MASTB SDG#: MOS04-16TB

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

*L. Kerwin  
12/3/98*

Questions? Contact your Client Services Representative  
Kay G. Hower at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681





LLI Sample No. WW **3009025**  
Collected:

Submitted: 09/30/98

Account No: 07802 Kerr-McGee Corporation P.O. Box 25861 Oklahoma City OK 73125
---

Trip Blank Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI  
MASTB SDG#: MOS04-16TB

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		ANALYST
			TRIAL ID	DATE AND TIME	
8213	BTEX (8021)	SW-846 8021A	1	10/01/98 1311	Jodie L. Buckwalter



Lancaster Laboratories  
2425 New Holland Pike  
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**LLI Sample No. 3009025**

Trip Blank Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
8213	BTEX (8021)	Batch: 98274A65									
0776	Benzene										
	0.2 ug/l	N.D.		105	102	3	107			81	124
0777	Toluene										
	0.2 ug/l	N.D.		105	101	4	105			84	119
0778	Ethylbenzene										
	0.2 ug/l	N.D.		105	101	4	105			82	118
0779	Total Xylenes										
	0.6 ug/l	N.D.		106	102	4	106			81	120



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
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See reverse side for explanation of symbols and abbreviations.

2216 Rev. 8/4/97





**LLI Sample No. 3009025**  
Trip Blank Grab Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634092  
Kerr-McGee Corporation

	SURROGATE SUMMARY		SURROGATE LIMITS		
	TRIAL ID	SURROGATE	RECOVERY %	LOW	HIGH
8213 BTEX (8021)	TFT		95	77	125



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
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LLI Sample No. WW 3009910  
Collected: 9/24/98

Submitted: 10/ 1/98 Reported: 12/17/98  
Discard: 12/17/98

Trip Blank Water Sample

Moss-American Superfund Site - Milwaukee, WI  
BLANK SDG#: MOS05-04TB

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	METHOD	
		RESULTS	DETECTION LIMIT UNITS
8213	BTEX (8021)		See Page 2

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graan

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300  
13:29:56 D 0003 4 REP 128410 634306  
050 0.00 00005933 DIS000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pkwy  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





LLI Sample No. WW 3009910  
 Collected: 9/24/98

Submitted: 10/ 1/98 Reported: 12/17/98  
 Discard: 12/17/98

Trip Blank Water Sample

Moss-American Superfund Site - Milwaukee, WI  
 BLANK SDG#: MOS05-04TB

Account No: 07802  
 Kerr-McGee Corporation  
 P.O. Box 25861  
 Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
 Rel.

AS RECEIVED  
 METHOD  
 RESULTS DETECTION LIMIT UNITS

CAT  
 NO. ANALYSIS NAME

BTEX (8021)

CAT NO.	ANALYSIS NAME	RESULTS	DETECTION LIMIT	UNITS
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

Questions? Contact your Client Services Representative  
 Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
 Michele Turner, B.A.  
 Manager, Volatiles



Lancaster Laboratories  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681





**LLI Sample No. WW 3009910**

Collected: 09/24/98

Submitted: 10/01/98

Trip Blank Water Sample

Moss-American Superfund Site - Milwaukee, WI  
BLANK SDG#: MOS05-04TB

Account No: 07802
Kerr-McGee Corporation
P.O. Box 25861
Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS		ANALYST
				ID	DATE AND TIME	
8213	BTEX (8021)	SW-846 8021B	1		10/05/98 1615	Jodie L. Buckwalter



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2651





LLI Sample No. **3009910**  
Trip Blank Water Sample

Moss-American Superfund Site - Milwaukee, WI

Group No. 634306  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
8213 BTEX (8021)		Batch: 98278A65									
0776	Benzene 0.2 ug/l	N.D.		103	103	0	96			81	124
0777	Toluene 0.2 ug/l	N.D.		103	100	2	97			84	119
0778	Ethylbenzene 0.2 ug/l	N.D.		102	97	4	96			82	118
0779	Total Xylenes 0.6 ug/l	N.D.		102	97	4	97			81	120



Lancaster Laboratories  
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Lancaster, PA 17605-2425  
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See reverse side for explanation of symbols and abbreviations

2216 Rev. 8/4/97







**LLI Sample No. 3009910**  
Trip Blank Water Sample  
Moss-American Superfund Site - Milwaukee, WI

Group No. 634306  
Kerr-McGee Corporation

TRIAL ID	SURROGATE SUMMARY		SURROGATE LIMITS	
	SURROGATE	RECOVERY %	LOW	HIGH
8213 BTEX (8021)	TFT	94	77	125



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2691





LLI Sample No. WW 3010838  
Collected:

Submitted: 10/ 2/98 Reported: 12/17/98  
Discard: 12/17/98

Trip Blank Water Sample  
RFW W.O. #02687-007-002-0022-00  
Moss-American Superfund Site - Milwaukee, WI  
MOSTB SDG#: MOS05-07TB

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

AS RECEIVED

CAT NO.	ANALYSIS NAME	METHOD	
		RESULTS	DETECTION LIMIT UNITS
8213	BTEX (8021)		See Page 2

1 COPY TO Kerr-McGee Corporation  
1 COPY TO Roy F. Weston  
1 COPY TO Data Package Group

ATTN: Garet Van de Steeg, PhD  
ATTN: Mr. Tom Graen

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300  
13:38:48 D 0003 3 REP 128410 634510  
050 0.00 00005933 DIS000

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster PA 17605-2425  
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Page: 2 of 5

LLI Sample No. WW **3010838**

Collected:

Submitted: 10/ 2/98 Reported: 12/17/98  
Discard: 12/17/98

Trip Blank Water Sample  
RFW W.O. #02687-007-002-0022-00  
Moss-American Superfund Site - Milwaukee, WI  
MOSTB SDG#: MOS05-07TB

Account No: 07802  
Kerr-McGee Corporation  
P.O. Box 25861  
Oklahoma City OK 73125

P.O. MOSS-AMERICAN  
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD DETECTION LIMIT	UNITS
BTEX (8021)				
0776	Benzene	N.D.	0.2	ug/l
0777	Toluene	N.D.	0.2	ug/l
0778	Ethylbenzene	N.D.	0.2	ug/l
0779	Total Xylenes	N.D.	0.6	ug/l

Questions? Contact your Client Services Representative  
Donald J. Nazario at (717) 656-2300

Respectfully Submitted  
Michele Turner, B.A.  
Manager, Volatiles



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681

See reverse side for explanation of symbols and abbreviations.

2214 Rev. 8/4/97





LLI Sample No. WW **3010838**  
Collected:

Submitted: 10/02/98

Trip Blank Water Sample  
RFW W.O. #02687-007-002-0022-00  
Moss-American Superfund Site - Milwaukee, WI  
MOSTB SDG#: MOS05-07TB

Account No: 07802
Kerr-McGee Corporation
P.O. Box 25861
Oklahoma City OK 73125

CAT NO	ANALYSIS NAME	METHOD	ANALYSIS		ANALYST
			TRIAL ID	DATE AND TIME	
8213	BTEX (8021)	SW-846 8021B	1	10/05/98 1652	Jodie L. Buckwalter



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2621





**LLI Sample No. 3010838**  
Trip Blank Water Sample  
RFW W.O. #02687-007-002-0022-00  
Moss-American Superfund Site - Milwaukee, WI

Group No. 634510  
Kerr-McGee Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
-----											
8213	BTEX (8021)	Batch: 98278A65									
0776	Benzene										
	0.2 ug/l	N.D.		103	103	0	96			81	124
0777	Toluene										
	0.2 ug/l	N.D.		103	100	2	97			84	119
0778	Ethylbenzene										
	0.2 ug/l	N.D.		102	97	4	96			82	118
0779	Total Xylenes										
	0.6 ug/l	N.D.		102	97	4	97			81	120



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax 717-656-2681





LLI Sample No. 3010838  
Trip Blank Water Sample  
RFW W.O. #02687-007-002-0022-00  
Moss-American Superfund Site - Milwaukee, WI

Group No. 634510  
Kerr-McGee Corporation

TRIAL ID	SURROGATE SUMMARY		SURROGATE LIMITS	
	SURROGATE	RECOVERY %	LOW	HIGH
8213 BTEX (8021)	TFT	98	77	125



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2399 Fax 717-656-2587

