



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4**

Science and Ecosystem Support Division  
Enforcement and Investigations Branch  
980 College Station Road  
Athens, Georgia 30605-2720

April 13, 2011

**4SESD-EIB**

**MEMORANDUM**

**SUBJECT:** Kerr-McGee Chemical (Columbus) Site Final Report  
Columbus, Mississippi  
SESD Project Numbers 11-0207

**FROM:** Timothy Simpson, Environmental Scientist  
Superfund and Air Section

*Timothy Simpson*

**THRU:** Laura Ackerman, Chief  
Superfund and Air Section

*M. Neill for*

**TO:** Steve Spurlin, OSC  
Emergency Response and Removal Branch  
Superfund Division

Attached is the final report for the samples collected at the Kerr-McGee Chemical (Columbus) Site in Columbus, Mississippi. The investigation was conducted the week of February 14, 2011. If you have any questions, please call me at (706) 355-8736.

Attachment

**REGION 4**  
**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**SCIENCE AND ECOSYSTEM SUPPORT DIVISION**

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**Site Investigation Report**  
**Kerr-McGee Chemical (Columbus) Site**  
**Columbus, Mississippi**  
**Project Identification Number: 11-0207**  
**Final: April 13, 2011**

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**On-Scene Coordinator:**

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**Project: Kerr-McGee Chemical (Columbus) Site, Columbus, Mississippi**  
**SESD Project Identification Number: 11-0207**

**Approving Official:**

for Laura Ackerman, Chief, Superfund and Air Section  
Mike Nail  
Signature

4/13/2009  
Date

**Project Leader:**

Timothy Simpson, Environmental Scientist, Superfund and Air Section  
Timothy Simpson  
Signature

04/12/2011  
Date

**SAMPLING INVESTIGATION REPORT  
KERR-MCGEE CHEMICAL (COLUMBUS) SITE  
COLUMBUS, MISSISSIPPI  
SESD PROJECT IDENTIFICATION NUMBER 11-0207**

**Introduction**

During the week of February 14, 2011 representatives of the United States Environmental Protection Agency (USEPA), Region 4, Science and Ecosystem Support Division (SESD), collected soil samples from residential and community properties adjacent to the Kerr-McGee Chemical (Columbus) Site in Columbus, Mississippi. The investigation was requested by Steve Spurlin, On-Scene Coordinator, Superfund Division, EPA Region 4, Atlanta, Georgia.

The following personnel participated in the investigation:

<u>Name</u>	<u>Organization</u>	<u>Duties</u>
Tim Simpson	Reg. 4 EPA/SESD	Project Leader, Sampler
Art Masters	Reg. 4 EPA/SESD	Sampler, Safety Officer
Phyllis Meyer	Reg. 4 EPA/SESD	Sampler
Kyle Russell	Tetra Tech EM, Inc.	Sampler
Kevin Matherne	Tetra Tech EM, Inc.	Sampler
Donald Fortson	ILS Environmental Services	Sampler, Sample Processing

**Site Background**

The objective of the SESD sampling investigation was to provide supporting data to aid EPA Region 4 in determining if soil in the surrounding neighborhoods had been impacted by operations at the former Kerr-McGee facility that was located at 2300 14<sup>th</sup> Avenue North. Kerr-McGee operated a wood preserving facility to pressure treat lumber products using creosote and pentachlorophenol as preservatives.

Detected chemical constituents were compared to the applicable Regional Screening Levels (RSLs). RSLs are conservative, long-term risk-based screening values developed by EPA to help identify contaminants of potential concern. Constituents reported at levels above their respective RSLs for residential surface soil were then compared against the Removal Action Level. Removal Action Levels are risk-based screening values developed by EPA to determine whether sample concentrations are sufficiently elevated that they may warrant a removal action. Exceedance of a Removal Action Level by itself does not imply that adverse health effects will occur.

In April 2010, SESD collected surface soil and sediment samples for semivolatile organic compounds (SVOCs) and dioxin analyses from residential properties and ditches adjacent to the site. The April sampling investigation was conducted for the EPA Region 4 RCRA program. It was conducted prior to the EPA Superfund program taking the lead for the investigation of the Site due to the Tronox bankruptcy. Eight samples collected in April 2010 exceeded the RSLs for at least one Polycyclic Aromatic Hydrocarbon (PAH).

During the week of October 25, 2010, SESD collected 49 soil samples from 39 residential and public properties (churches, Union Cemetery, Hunt Intermediate School) adjacent to the Kerr-McGee site. Samples were analyzed for SVOCs and dioxin.

SVOC results from the October sampling event showed that forty-one samples exceeded the residential RSL for at least one PAH; however, only one residential Removal Action Level was exceeded. The 1,500 ug/kg Removal Action Level for benzo(a)pyrene was exceeded at Station 12462B collected on the Hunt Intermediate School field.

The October dioxin data showed that no Mammalian TEQs exceeded the Office of Solid Waste and Emergency Response (OSWER) action level for dioxin. The highest Mammalian TEQ reported was 140 ng/kg; however, most of the data for 2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) were reported as non-detected and rejected. According to the Final Analytical Report, the presence or absence of 2,3,7,8-TCDD could not be determined from the non-detected data due to laboratory quality control problems. The total dioxin TEQ was still a valid calculation according to SESD protocols. However, due to the rejected data, EPA, Region 4 decided to resample all locations for dioxin.

### **Sampling Investigation Summary**

During the week of February 14, 2011, SESD recollected dioxin soil samples from the properties previously sampled in October. Twelve additional samples, including two from a waste pile, were collected for dioxin and SVOC analyses. The sample locations appear in Figures 1-6. Overall, 61 soil samples from 45 properties were collected (Note: several properties had multiple sample stations).

Surface soil samples were collected from a depth of 0-3 inches. Subsurface soil samples were collected from three residential properties at a depth of 12-15 inches to determine if subsurface soil had been impacted by site activities. It should be noted that Station TN09 was a subsurface sample collected at the same property as Station 12624. Station TN09 was a location previously sampled (surface soil only) by the RCRA program. The same RCRA sample station ID was used for the collection of the subsurface soil sample at that location.

Due to the variation in size of the properties, the samplers used an authoritative design to determine sample aliquot numbers and locations. The goal was to yield a sample representative of the potential contamination of each property. Generally, the samples consisted of five aliquots; however, at times, the number and locations of the soil aliquots were adjusted because investigators avoided collecting samples from areas that could be potentially impacted from residential activities. Areas where cars were parked, trash burned, or chemicals stored were not sampled. In addition to recollecting the original three samples at the Hunt Intermediate School, the field was broken into 5 grids (100 ft x 100 ft) to further characterize the property.

During the February sampling event, a soil pile containing creosote waste material was sampled at the request of the On-Scene Coordinator. The creosote waste material was located at 716 Waterworks Road. The waste pile was generated by representatives of the

Maranatha Faith Center when they cut-up and transported a large culvert pipe to sell as scrap metal. The culvert, consisting of an old rail tanker car, had been staged on the property since approximately 1989 when it was removed from a nearby drainage ditch known to contain creosote contamination. The waste pile was unsecured and accessible by nearby residents. EPA's Emergency Response & Removal Branch initiated an emergency action to remove and secure the waste material. A sample of the waste material was collected prior to removal. A second sample was collected from the impacted area once the waste material was removed.

### **Sampling and Analytical Methodology**

Sample collection activities were in accordance with the *Quality Assurance Project Plan, Kerr-McGee Chemical (Columbus, MS) Site Sampling Investigation, February 2, 2011*, and EPA, Region 4 SESD *Field Branches Quality System and Technical Procedures*. The field investigation was conducted in accordance with the following procedures:

- SESDPROC-005-R1, Sample and Evidence Management
- SESDPROC-010-R3, Logbooks
- SESDPROC-110-R2, Global Positioning System
- SESDPROC-209-R1, Packing, Marking, Labeling, and Shipping of Environmental and Waste Samples
- SESDPROC-202-R1, Management of Investigation Derived Waste
- SESDPROC-200-R2, Sediment Sampling
- SESDPROC-300-R1, Soil Sampling

All samples were analyzed by a contract laboratory in accordance to the most recent Contract Laboratory Statement of Work. The analytical methods are listed on the Final Analytical Report data sheets in Appendix A.

### **Analytical Results:**

#### **SVOCs**

The Final Analytical Report, with all data qualifiers, is in Appendix A.

SVOC data were compared to the RSLs for residential soil. Data exceeding the RSLs were compared to the residential Removal Action Levels. Table 2 summarizes the SVOC data and shows detections above the residential RSLs and Removal Action Levels. Additionally, Table 2 includes the Hunt Intermediate School data from the October 2010 sampling event.

Eight of the twelve soil samples collected in February had rejected data for 4-chloroaniline, hexachlorocyclopentadiene, and 3,3'-dichlorobenzidine. The data were rejected due to low surrogate recovery. These chemicals are typically associated with pesticides and/or industrial dyes and are not typically associated with wood treating facilities. The existing analytical data for the site are adequate to eliminate these three compounds as contaminants of concern. These analytes were not detected in any of the samples collected during the October 2010 sampling investigation or the four February

2011 samples with non-rejected data. In addition, they were not detected in any of the samples collected during the April 2010 RCRA sampling investigation.

### **Hunt Intermediate School Field, Propst Park, and Residential Locations**

Seven of the ten SVOC samples collected during the February sampling event exceeded an RSL for at least one PAH; however, no Removal Action Levels were exceeded. There were no RSL exceedances at surface soil Stations 12462GB1 (school field), 12462GC1 (school field) and KMPP1SF (Propst Park). Figure 5 shows the Propst Park sampling location.

As stated previously, the Hunt Intermediate School field was divided into five sample stations (100 ft x 100 ft grids) to further characterize the location. Figure 6 shows the school sampling locations. Previous sampling results showed benzo(a)pyrene concentrations above the Removal Action Level at Station 12462B. It should be noted that this station was located in February sampling grid 12462GB2.

The February school, residential, and park analytical results are summarized below:

- Benzo(a)anthracene (330 ug/kg detected) exceeded the 150 ug/kg RSL at Station 12462GB2 (Hunt Intermediate School). The 15,000 ug/kg Removal Action Level for benzo(a)anthracene was not exceeded.
- Benzo(a)pyrene exceeded the 15 ug/kg RSL in seven samples ranging from 27 ug/kg to 330 ug/kg. The highest level detected was at Station 12462GB2 (Hunt Intermediate School). The 1,500 ug/kg Removal Action Level for benzo(a)pyrene was not exceeded at any of the sampling locations.
- Benzo(b)fluoranthene (430 ug/kg detected) exceeded the 150 ug/kg RSL at station 12462GB2 (Hunt Intermediate School). The 15,000 ug/kg Removal Action Level for benzo(b)fluoranthene was not exceeded.
- Dibenzo(a,h)anthracene exceeded the 15 ug/kg RSL at Station 12462GB2 (55 ug/kg detected) collected at Hunt Intermediate School and Station 29844 (16J ug/kg detected) collected at a residential location. The 1,500 ug/kg Removal Action Level for dibenzo(a,h)anthracene was not exceeded at any of the sampling locations.
- Indeno (1,2,3-cd) pyrene (230 ug/kg detected) exceeded the 150 ug/kg RSL only at Station 12462GB2 (Hunt Intermediate School). The 15,000 ug/kg Removal Action Level for indeno (1,2,3-cd) pyrene was not exceeded.
- Additional SVOCs were detected but were not above the RSLs.

## Creosote Waste Pile

Two SVOC samples were collected at the waste pile location. Sample KMWP01 was collected directly from the waste pile prior to removal. Sample KMWP02 was collected from the impacted area once the waste material was removed.

The creosote waste pile analytical results are summarized below:

- The Removal Action Levels for benzo(a)anthracene (110,000 ug/kg detected), benzo(a)pyrene (55,000 ug/kg detected), benzo(b)fluoranthene (95,000 ug/kg detected), dibenzo(a,h)anthracene (8,400 ug/kg detected), Indeno (1,2,3-cd) pyrene (31,000 ug/kg detected) were exceeded in Sample KMWP01
- Benzo(k)fluoranthene (70,000 ug/kg detected) exceeded the 1,500 ug/kg RSL in sample KMWP01; however, the 150,000 ug/kg Removal Action Level was not exceeded.
- Chrysene (100,000 ug/kg detected) exceeded the 15,000 ug/kg RSL in sample KMWP01. The 1,500,000 ug/kg Removal Action Level for chrysene was not exceeded.
- Benzo(a)pyrene (43 ug/kg detected) exceeded the 15 ug/kg RSL in sample KMWP02. The 1,500 ug/kg Removal Action Level was not exceeded.
- Additional SVOCs were detected in both samples but were not above the RSLs.

## Dioxin

The Final Analytical Report for dioxin, with all data qualifiers, is in Appendix A. The Mammalian Toxic Equivalency Quotients (TEQ) values were compared to the OSWER residential dioxin action level (1,000 ng/kg). The TEQ data are summarized in Tables 3 and 4. Table 3 compares the October 2010 Mammalian TEQ data with the February 2011 Mammalian TEQ data. Table 4 shows the TEQ data for the new stations sampled during the February sampling event.

## **Hunt Intermediate School Field, Propst Park, and Residential Locations**

The February Mammalian TEQ values ranged from 1.8J ng/kg to 81J ng/kg. No TEQs exceeded the OSWER action level for dioxin. The highest reported Mammalian TEQ concentration was for the composite sample collected at Station 12462A (Hunt Intermediate School). The TEQs for the nine Hunt Intermediate School samples collected during the February sampling investigation ranged from 4.4J ng/kg - 81J ng/kg.

Overall, the TEQs reported for the February sampling investigation were similar to the values reported for the October 2010 sampling event; however, two subsurface samples showed significantly lower values in the samples collected during the February sampling event. Station TN09 saw a decrease in the TEQ value from 97J ng/kg to 13J ng/kg and Station 13744B saw a decrease in the TEQ value from 59J ng/kg to 1.8J ng/kg.



## **Creosote Waste Pile**

Two dioxin samples were collected at the waste pile location. Sample KMWP01 was collected directly from the waste pile prior to removal. Sample KMWP02 was collected from the impacted area once the waste material was removed.

The Mammalian TEQ value reported for sample KMWP01 was 850J ng/kg. It should be noted that the data for 2,3,7,8-Tetrachlorodibenzofuran was rejected for sample KMWP01 due to the internal standard being outside the method control limits. The explanation for the rejected data appears in the dioxin Final Analytical Report in Appendix A. The TEQ is valid according to SESD protocols.

The Mammalian TEQ for Sample KMWP02 was 1.8J ng/kg. The TEQs for the two creosote pile samples did not exceed the OSWER action level for dioxin.

## **Quality Assurance Results**

Dioxin split samples were collected at Stations 12462C, 12490, and 13758. A dioxin and SVOC split sample was collected at Station 13764. Some variation was seen in the dioxin split sample collected at Station 13758, but overall, the analytical results for the split samples compare well with the results reported for the primary sample which is an indication of good sample mixing.

## **References**

*Quality Assurance Project Plan, Kerr-McGee Chemical (Columbus, MS) Site Sampling Investigation*, February 2, 2011. SESD Project Number 11-0207.

Region 4 EPA *Field Branches Quality System and Technical Procedures*.  
<http://www.epa.gov/region4/sesd/fbqstp/index.html>

EPA Regional Screening Level Summary Table, November 2010.

Office of Solid Waste and Emergency Response, *Approach for Addressing Dioxin in Soil at CERCLA and RCRA Sites*, April 13, 1998.

**DATA TABLES**  
**KERR-MCGEE CHEMICAL (COLUMBUS) SITE**  
**COLUMBUS, MS**  
**WEEK OF FEBRUARY 14, 2011**

**TABLE 1**  
**SAMPLE LOCATIONS**  
**KERR-MCGEE CHEMICAL (COLUMBUS) SITE**  
**COLUMBUS, MS**

Station ID	Sample ID	Latitude	Longitude
12131	12131A2SF	33.51091	-88.40782
12484	12484A2SF	33.51178	-88.40417
12486	12486A2SF	33.51151	-88.40437
12490	12490A2SF	33.51139	-88.40493
12490	12490A2SFX Split Sample	33.51139	-88.40493
12491	12491A2SF	33.51171	-88.40553
12520	12520A2SF	33.51208	-88.40524
12522	12522A2SF	33.51163	-88.40515
12462A	12462A2SF	33.50815	-88.41039
12462B	12462B2SF	33.50802	-88.41032
12462C	12462C2SF	33.50781	-88.41024
12462C	12462C2SFX Split Sample	33.50781	-88.41024
12470	12470A2SF	33.50840	-88.40710
12323	12323A2SF	33.50994	-88.41043
12324	12324A2SF	33.50982	-88.41041
12621	12621A2SF	33.50873	-88.40215
12622	12622A2SF	33.50856	-88.40237
12623	12623A2SF	33.50852	-88.40234
TN09	12624A2SB12	33.50828	-88.40250
12624	12624B2SF	33.50806	-88.40276
12629	12629A2SF	33.50760	-88.40255
12630	12630A2SF	33.50784	-88.40242
12633	12633A2SF	33.50808	-88.40207
12634	12634A2SF	33.50832	-88.40197
13767	13767A2SF	33.50488	-88.40216
13774	13774A2SF	33.50365	-88.40234
13775	13775A2SF	33.50362	-88.40215
13775	13775A2SB12	33.50362	-88.40215
13900	13900A2SF	33.50352	-88.40128
13890	13890A2SF	33.50336	-88.39928

**TABLE 1 (Continued)**  
**SAMPLE LOCATIONS**  
**KERR-MCGEE CHEMICAL (COLUMBUS) SITE**  
**COLUMBUS, MS**

Station ID	Sample ID	Latitude	Longitude
13889	13889A2SF	33.50323	-88.39915
13785	13785A2SF	33.50380	-88.39977
13894	13894A2SF	33.50325	-88.40015
13746	13746A2SF	33.50471	-88.40386
13750	13750A2SF	33.50414	-88.40434
13753	13753A2SF	33.50368	-88.40457
13755	13755A2SF	33.50380	-88.40377
13756	13756A2SF	33.50399	-88.40382
13758	13758A2SF	33.50416	-88.40369
13758	13758A2SFX Split Sample	33.50416	-88.40369
13759	13759A2SF	33.50414	-88.40325
13761	13761A2SF	33.50444	-88.40304
13762	13762A2SF	33.50471	-88.40371
13766	13766A2SF	33.50556	-88.40240
13723	13723A2SF	33.50613	-88.40284
13743	13743A2SF	33.50579	-88.40260
13744A	13744A2SF	33.50574	-88.40306
13744B	13744B2SF	35.50603	-88.40305
13744B	13744B2SB12	35.50603	-88.40305
12462GA1*	12462GA1SF	33.50811	-88.41068
12462GB1*	12462GB1SF	33.50783	-88.41073
12462GB2*	12463GB2SF	33.50780	-88.41032
12462GC1*	12463GC1SF	33.50751	-88.41071
12462GC2*	12462GC2SF	33.50755	-88.41036
13764*	13764A2SF	33.50496	-88.40283
13764*	13764A2SFX Split Sample	33.50496	-88.40283
KMPP1*	KMPP1SF	33.49965	-88.39230
29844*	29844A2SF	33.50366	-88.40140
KM1501*	KM1501A2SF	33.51160	-88.40458
KMWP01*	KMWP01	33.50428	-88.40180
KMWP01*	KMWP02	33.50428	--88.40180

\*Locations not previously sampled by SESD.

**TABLE 2**  
**ANALYTICAL DATA: SVOCS**  
**KERR-MCGEE CHEMICAL (COLUMBUS) SITE**  
**COLUMBUS, MS**

Analyte Units RSL RES SOIL RAL		Benzo(a)anthracene ug/kg <b>150</b> <b>15,000</b>	Benzo(a)pyrene ug/kg <b>15</b> <b>1,500</b>	Benzo(b)fluoranthene ug/kg <b>150</b> <b>15,000</b>	Benzo(k)fluoranthene ug/kg <b>1,500</b> <b>150,000</b>	Dibenzo(a,h)anthracene ug/kg <b>15</b> <b>1,500</b>	Indeno (1,2,3-cd) pyrene ug/kg <b>150</b> <b>15,000</b>	Chrysene ug/kg <b>15,000</b> <b>1,500,000</b>
Station ID	Sample ID	Hunt Intermediate School Field (October 2010)						
12462A	12462ASF	36	<b>69</b>	140	75	<b>20</b>	49	--
12462B	12462BSF	<b>6,300</b>	<b>4,800</b>	<b>11,000</b>	<b>7,200</b>	<b>690</b>	<b>2,100</b>	--
12462C	12462CSF	73	<b>77</b>	<b>160</b>	85	<b>19</b>	51	--
12462C	12462CSFX Split Sample	94	<b>87</b>	140	74	<b>24</b>	56	--
		Hunt Intermediate School Field (February 2011)						
12462GA1	12462GA1SF	58	<b>55</b>	130J, QC-2	94	13	86J QC-2	100
12462GB1	12462GB1SF	14	15U, B-4	39	26	2.5J, CLP01	19	30
12462GB2	12463GB2SF	<b>330</b>	<b>330</b>	<b>430</b>	340	<b>55</b>	<b>230</b>	390
12462GC1	12463GC1SF	9.9	9.4U, B-4	35	27	2.8J, CLP01	16	26
12462GC2	12462GC2SF	38	<b>34</b>	120J, QC-2	81	11J, CLP01	65J, QC-2	91
		New Residential/Community Locations (February 2011)						
13764	13764A2SF	42	<b>34</b>	64	58	9.9J, CLP01	44	56
13764	13764A2SFX (Split Sample)	39	<b>32</b>	60	53	9.0J, CLP01	39	52
29844	29844A2SF	50	<b>51</b>	110	100	<b>16J, CLP01</b>	70	80
KM1501	KM1501A2SF	22	<b>27</b>	72J, QC-2	61	8.3J, CLP01	45J, OC-2	41
KMPP1	KMPP1SF	8.9	11U, B-4	19	14	5.1	12	11
		Creosote Waste Pile (February 2011)						
KMWP01	KMWP01	<b>110,000</b>	<b>55,000</b>	<b>95,000</b>	<b>70,000</b>	<b>8,400</b>	<b>31,000</b>	<b>100,000</b>
KMWP01	KMWP02	56	<b>43</b>	78J, QC-2	73	13J, CLP01	63J, QC-2	68

\*Bold indicates value is above the RSL for residential soil. Bold and shaded indicates value is above RAL.

U - The analyte was not detected at or above the reporting limit. J - The identification of the analyte is acceptable; the reported value is an estimate. QC-2Analyte concentration high in continuing calibration verifications standard, CLP-01 – Concentration reported is less than the lowest standard on calibration curve. B-4 – Level in blank impacts MRLs.

Note: Sample KMWP01 was collected prior to waste pile removal. Sample KMWP02 was collected from the impacted area after the waste pile was removed.

Note: Samples collected at Stations 12462GB2 and 12462GC1 were incorrectly transcribed on the chain of custody as sample IDs 12463GB2SF and 12463GC1SF.

**TABLE 3**  
**ANALYTICAL DATA: DIOXIN MAMMALIAN TEQ COMPARRISON**  
**KERR-MCGEE CHEMICAL (COLUMBUS) SITE**  
**COLUMBUS, MS**

Units OSWER Action Level		Mammalian TEQ ng/kg 1000		Units OSWER Action Level		Mammalian TEQ ng/kg 1000	
Station ID	Sample ID	October 2010	February 2011	Station ID	Sample ID	October 2010	February 2011
12131	12131A2SF	18 J,D-5	23J, D-5	13744A	13744A2SF	61	38J, D-5
12323	12323A2SF	29J,D-5	33J, D-5	13744B	13744B2SB12	59J,D-5	1.8J, D-5
12324	12324A2SF	50J,D-5	78J, D-5	13744B	13744B2SF	110J,D-5	78J, D-5
12462A	12462A2SF	57	81J, D-5	13746	13746A2SF	50J,D-5	22J, D-5
12462B	12462B2SF	88	60J, D-5	13750	13750A2SF	19J,D-5	17J, D-5
12462C	12462C2SF	23J,D-5	27J, D-5	13753	13753A2SF	29J,D-5	31J, D-5
12462C	12462C2SFX Split Sample	22J,D-5	34J, D-5	13755	13755A2SF	20J,D-5	20J, D-5
12470	12470A2SF	110J,D-5	71J, D-5	13756	13756A2SF	30J,D-5	8.9J, D-5
12484	12484A2SF	18J,D-5	23J, D-5	13758	13758A2SF	38J,D-5	15J, D-5
12486	12486A2SF	51J,D-5	59J, D-5	13758	13758A2SFX Split Sample	38J,D-5	54J, D-5
12490	12490A2SF	7.3J,D-5	5.9J, D-5	13759	13759A2SF	26J,D-5	29J, D-5
12490	12490A2SFX Split Sample	8.0J,D-5	4.7J, D-5	13761	13761A2SF	65	75J, D-5
12491	12491A2SF	11J,D-5	4.4J, D-5	13762	13762A2SF	24J,D-5	6.0J, D-5
12520	12520A2SF	12J,D-5	8.8J, D-5	13766	13766A2SF	13J,D-5	14J, D-5
12522	12522A2SF	11J,D-5	13J, D-5	13767	13767A2SF	22J,D-5	21J, D-5
12621	12621A2SF	11J,D-5	13J, D-5	13774	13774A2SF	4.2J,D-5	3.2J, D-5
12622	12622A2SF	11J,D-5	11J, D-5	13775	13775A2SB12	4.8J,D-5	1.5J, D-5
12623	12623A2SF	140	53J, D-5	13775	13775A2SF	4.0J,D-5	3.3J, D-5
12624	12624B2SF	7.2J,D-5	40J, D-5	13785	13785A2SF	16J,D-5	13J, D-5
TN09	12624A2SB12	97J,D-5	13J, D-5	13889	13889A2SF	2.8J,D-5	5.9J, D-5
12629	12629A2SF	79J,D-5	65J, D-5	13890	13890A2SF	9.1J,D-5	2.7J, D-5
12630	12630A2SF	4.9J,D-5	5.7, D-5	13894	13894A2SF	3.8J,D-5	2.8J, D-5
12633	12633A2SF	4.9J,D-5	4.7J, D-5	13900	13900A2SF	20J,D-5	8.9J, D-5
12634	12634A2SF	13J,D-5	11J, D-5				
13723	13723A2SF	91D-5	46J, D-5				
13743	13743A2SF	13J,D-5	8.3J, D-5				

J- The identification of the analyte is acceptable; the reported value is an estimate.

D-5 – Estimated quantitation for one or more individual constituents comprising >10% of the total

Note: Sample IDs listed are for February 2011, sampling investigation.

**TABLE 4**  
**ANALYTICAL DATA: DIOXIN MAMMALIAN TEQ**  
**KERR-MCGEE CHEMICAL (COLUMBUS) SITE**  
**COLUMBUS, MS**

Units OSWER Action Level		Mammalian TEQ ng/kg 1000
Residential/Community Locations		
Station ID	Sample ID	Results (ng/kg)
13764	13764A2SF	4.4J, D-5
13764	13764A2SFX Split Sample	3.8J, D-5
29844	29844A2SF	5.2J, D-5
KMPP1	KMPP1SF	2.4J, D-5
KM1501	KM1501A2SF	3.2J, D-5
Hunt Intermediate School Field		
Station ID	Sample ID	Results (ng/kg)
12462GA1	12462GA1SF	26J, D-5
12462GB1	12462GB1SF	7.8J, D-5
12462GB2	12463GB2SF	23J, D-5
12462GC1	12463GC1SF	4.4J, D-5
12462GC2	12462GC2SF	18J, D-5
Creosote Waste Pile		
Station ID	Sample ID	Results (ng/kg)
KMWP01	KMWP01	850J, D-5
KMWP01	KMWP02	1.8J, D-5

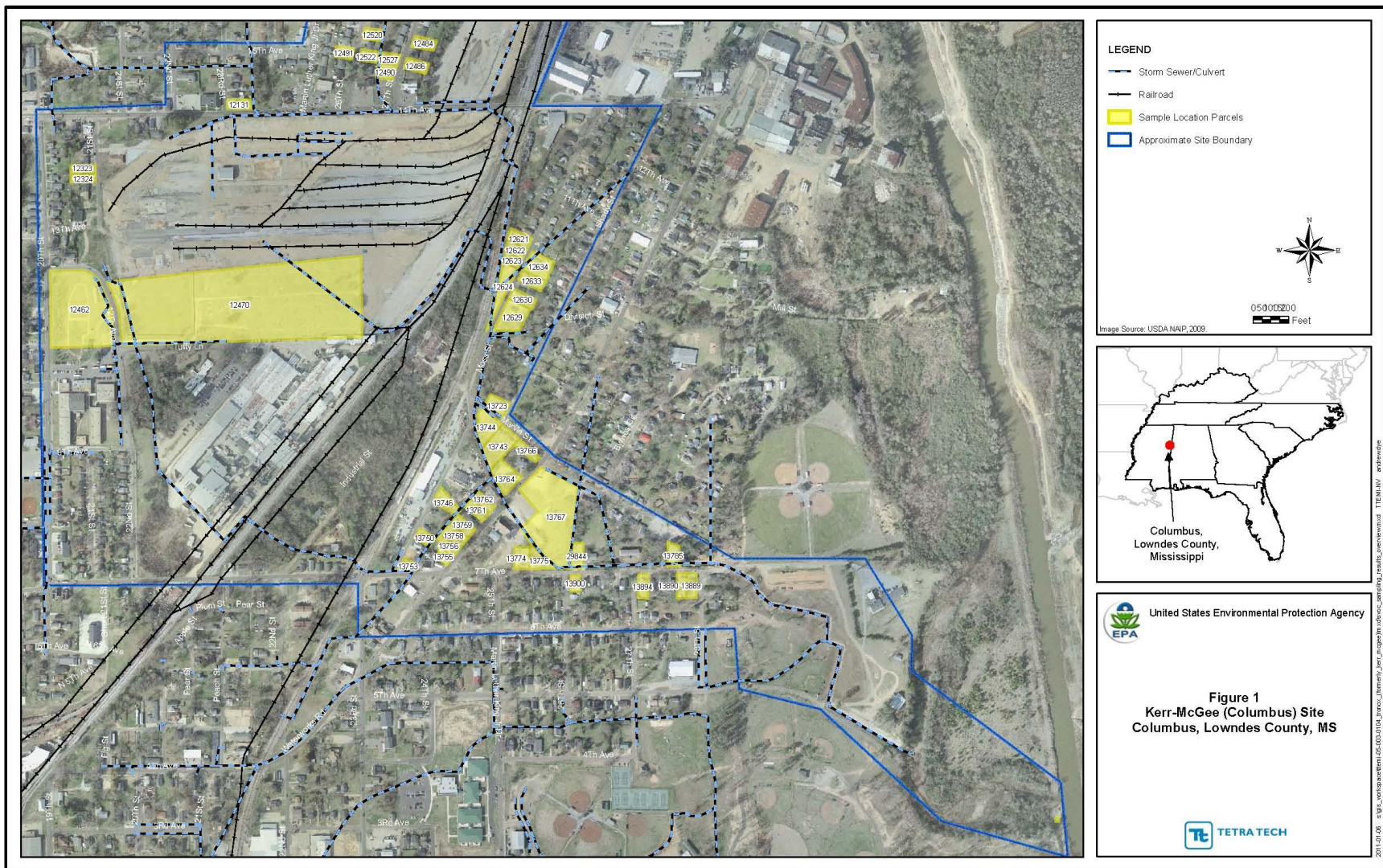
J- The identification of the analyte is acceptable; the reported value is an estimate.

D-5 - Estimated quantitation for one or more individual constituents comprising >10% of the total

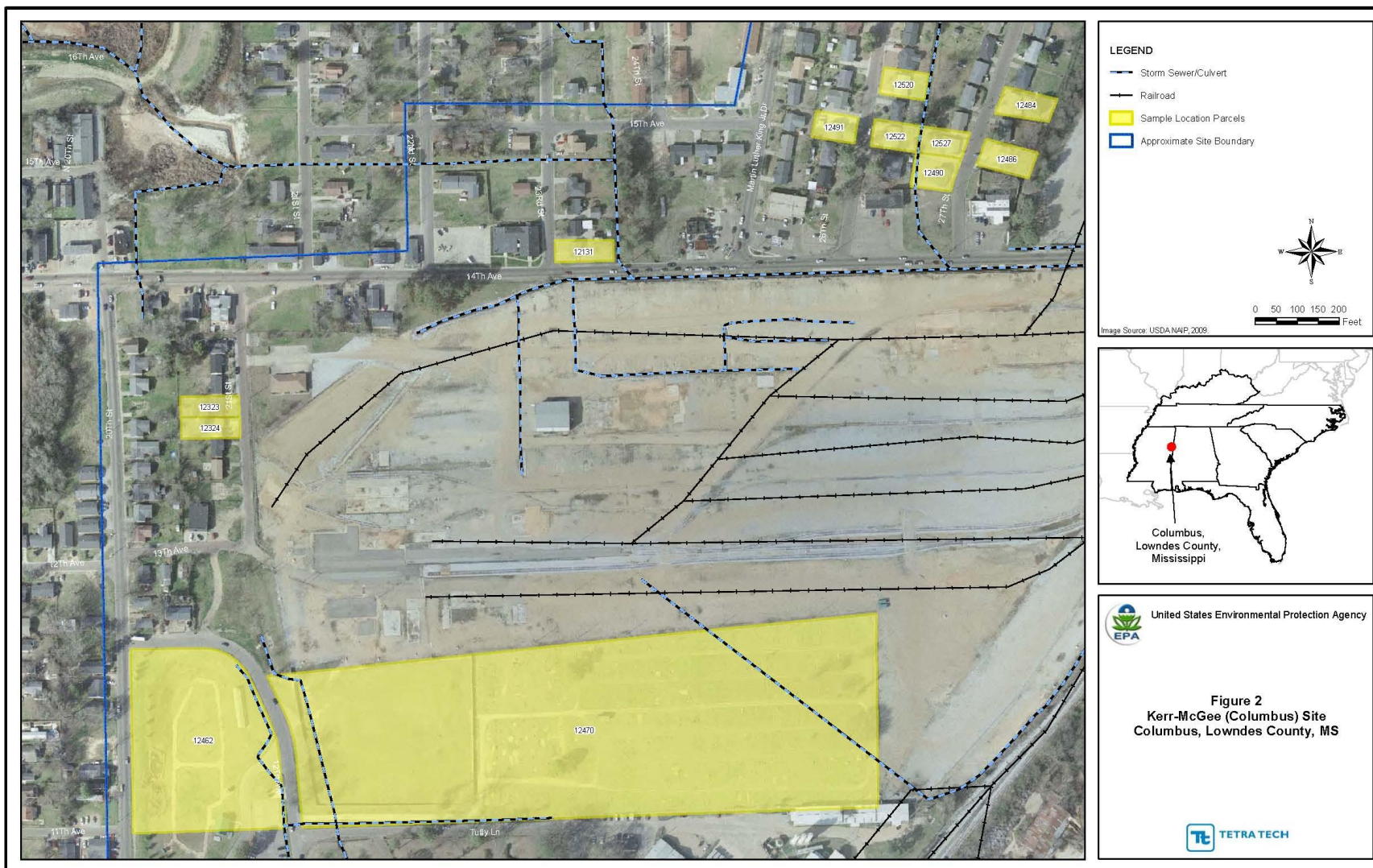
Note: Sample KMWP01 was collected prior to waste pile removal. Sample KMWP02 was collected from the impacted area after the waste pile was removed.

**SITE FIGURES**  
**KERR-MCGEE CHEMICAL (COLUMBUS) SITE**  
**COLUMBUS, MS**  
**WEEK OF FEBRUARY 14, 2011**

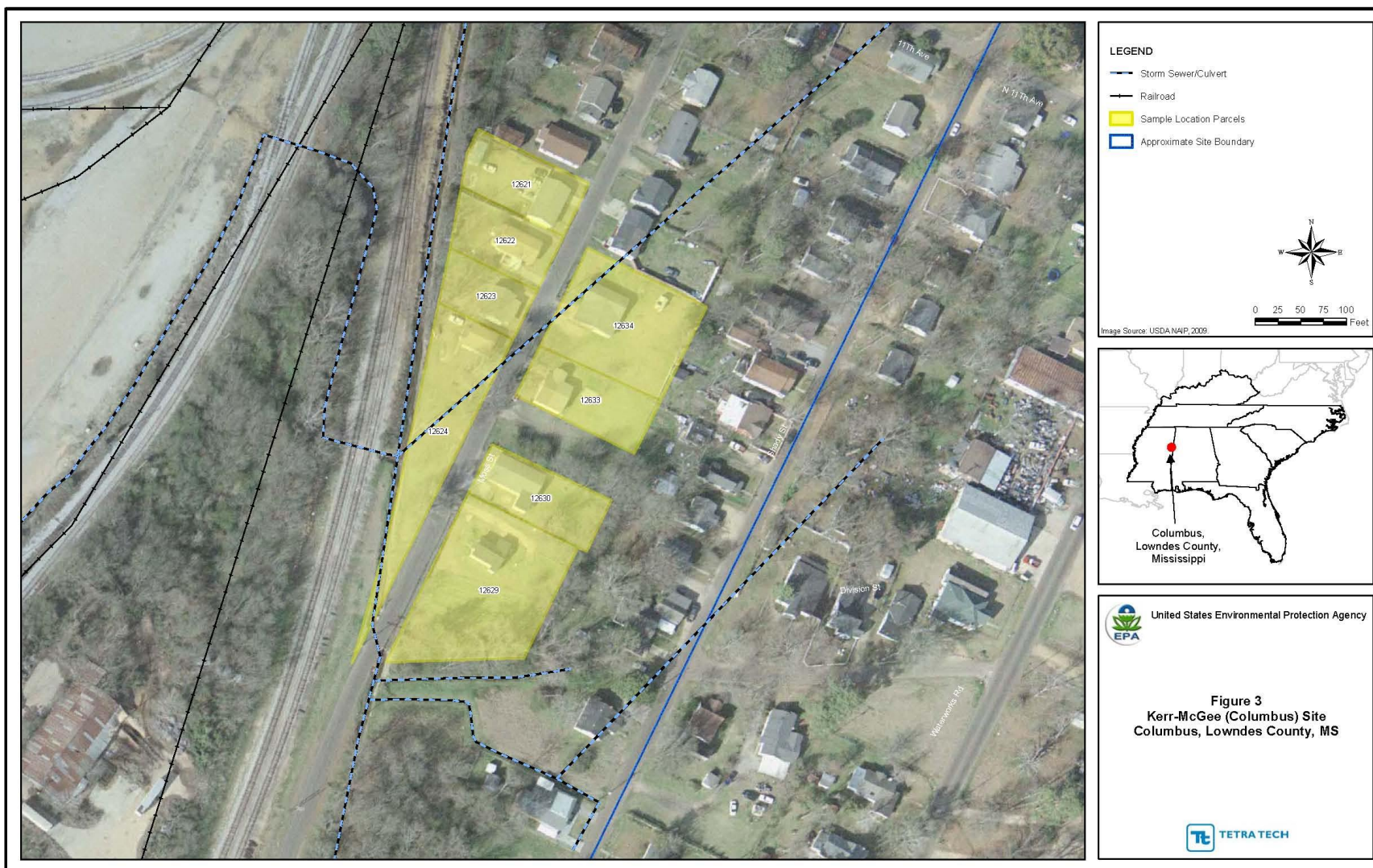




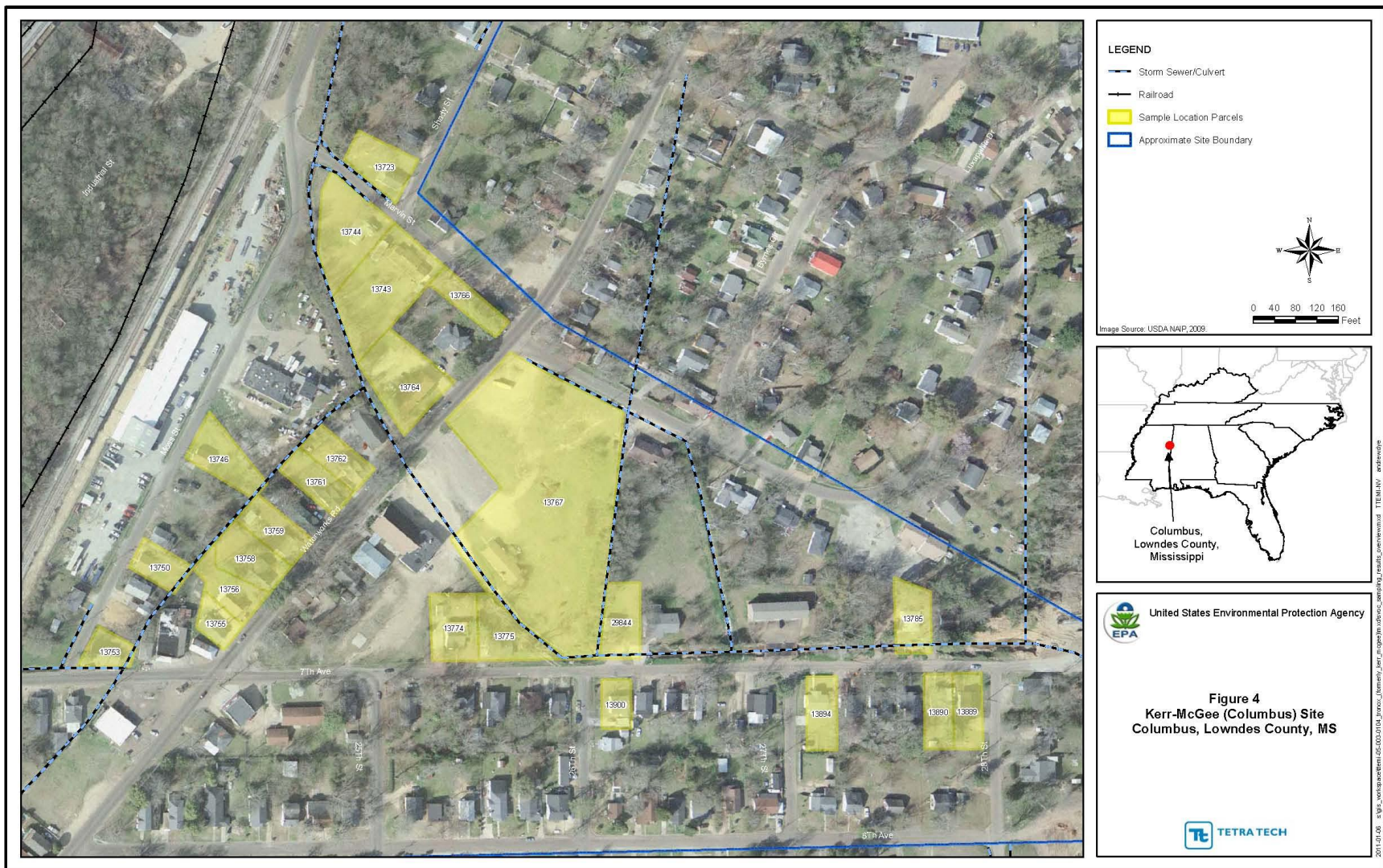




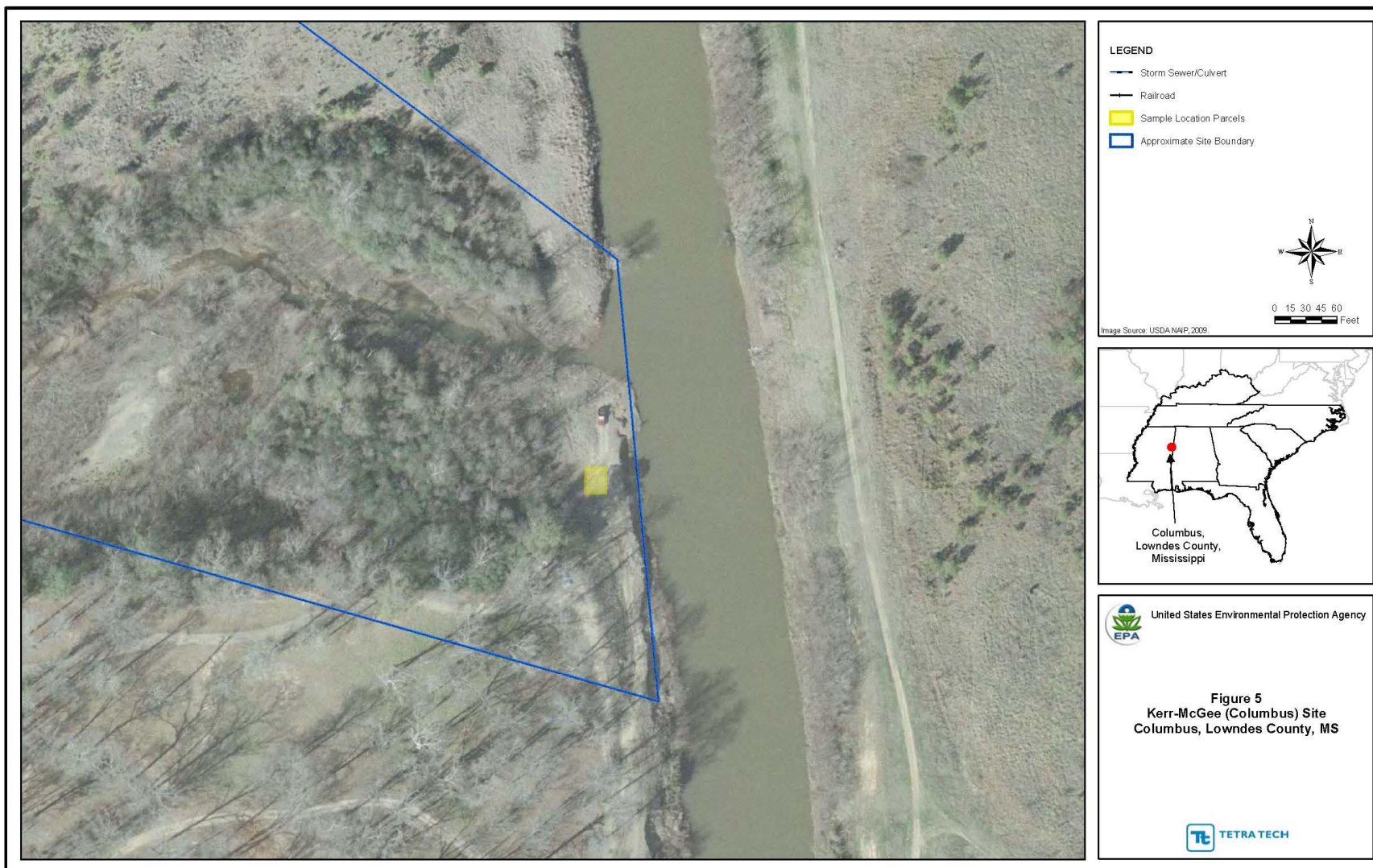


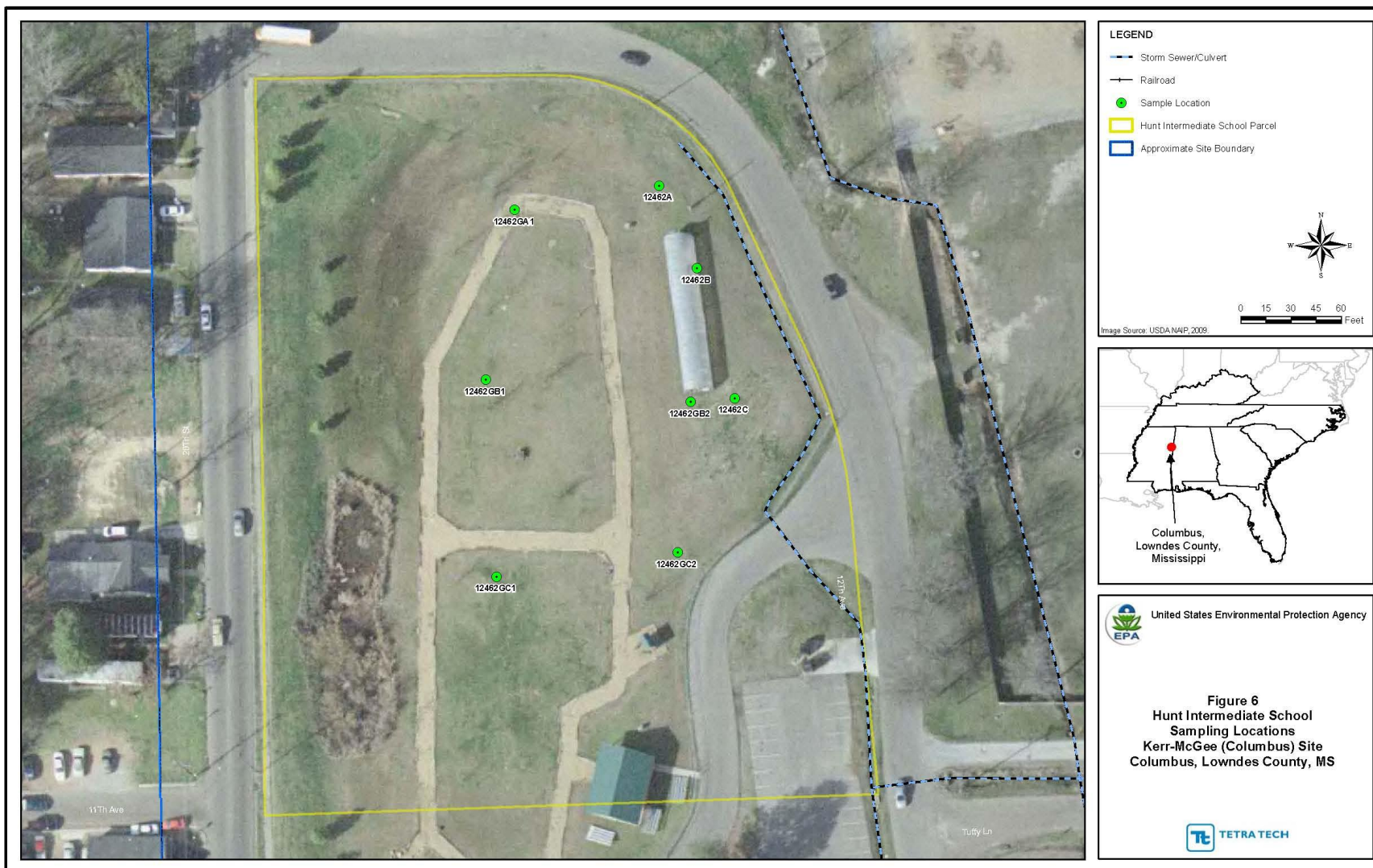












**APPENDIX A  
ANALYTICAL DATA REPORTS  
KERR-MCGEE CHEMICAL (COLUMBUS) SITE  
SESD PROJECT IDENTIFICATION NUMBER 11-0207  
WEEK OF FEBRUARY 14, 2011**

**Semi-Volatile Organic Compounds Analytical Data Reports  
(11-0207) (40 Total Pages)**

**Dioxin Analytical Data Reports  
(11-0207) (129 Total Pages)**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 4 Science and Ecosystem Support Division  
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

**March 23, 2011**

**4SESD-MTSB**

**MEMORANDUM**

**SUBJECT:** FINAL Analytical Report  
Project: 11-0207, Kerr-McGee Chemical (Columbus) Site  
Superfund Emergency Response and Removal

**FROM:** Jeffrey Hendel  
Quality Assurance Section Chemist

**THRU:** Marilyn Maycock, Chief  
Quality Assurance Section

**TO:** Timothy Simpson

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the associated contract Statement Of Work (SOW). In general, project data quality objectives have not been used to evaluate these data prior to release by the Quality Assurance Section. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report.

Analyses Included in this report:

Method Used:

---

**Semi Volatile Organics (SVOA)**

Semivolatile organic compounds

CLP BNA





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**Report Narrative** for Work Order C110904, Project: 11-0207  
Site Name: Kerr-McGee Chemical Site, Columbus, MS  
CLP Case No. 41017, ELEMENT Sample Nos. C110904-01 through C110904-12

Organic Analysis: Liberty Analytical Corp., Cary, NC

The ESAT Work Team reviewed data for twelve (12) soil samples for Semivolatile Extractables with Selected Ion Monitoring (SIM) per CLP statement of work SOM01.2. The samples were collected between 02/15/11 and 02/17/11, and were received by the laboratory between 02/16/11 and 02/18/11. The final data package was received on 03/04/11 by the USEPA Quality Assurance Section, Region 4 SESD/MTSB. The laboratory satisfied all technical analysis and extraction holding time requirements. A Stage 4 validation consisting of an electronic/manual review (S4VEM) was performed on the organic samples submitted for this case. The data package presents acceptable technical performance with qualifications.

All results associated with erratic initial and/or continuing calibration performance were "J" flagged with the appropriate Element qualifier (CLP16 and/or QC-1/QC-2). Deuterated monitoring compounds (DMC) are used as surrogates in each sample for GC/MS analysis to monitor extraction efficiency.

Pertinent data quality factors are discussed below:

#### **Semivolatile Extractables**

The recovery of the DMC chloroaniline-d4 was below 10% but within limits in samples C110904-01 and 12. The results associated with this DMC (4-chloroaniline, hexachlorocyclopentadiene, and 3,3'-dichlorobenzidine), all not detected, were "J" qualified (QS-4). The recovery of the DMC chloroaniline-d4 was below 10% and less than limits in samples C110904-03, 04, 05, 06, 07, 08, and 09. The results associated with this DMC, all not detected, were "J" qualified (QS-4).

#### **Semivolatile Extractable SIM**

The reporting limit for benzo(a)pyrene was raised in samples C110904-02, 04, and 10 due to blank contamination. The reporting limit for benzo(ghi)perylene was raised in samples C110904-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, and 12 due to blank contamination. The reporting limit for both fluoranthene and pyrene was raised in sample C110904-10 due to blank contamination.

Data qualification factors are explained by the Region 4 - specific qualifier definitions which are included elsewhere in this report. Further details are provided in the complete data review report, which is on file in the Region 4 SESD Records Center.

cc: Nardina Turner



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**SAMPLES INCLUDED IN THIS REPORT**

**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**

**Contract Lab Case: 41017**

Sample ID	Laboratory ID	MD#	D#	Matrix	Date Collected
12462GA1SF	C110904-01		69Q3	Surface Soil	2/15/11 14:20
12462GB1SF	C110904-02		69Q4	Surface Soil	2/15/11 14:35
12463GB2SF	C110904-03		69Q5	Surface Soil	2/15/11 15:25
12463GC1SF	C110904-04		69Q7	Surface Soil	2/15/11 14:50
12462GC2SF	C110904-05		69Q6	Surface Soil	2/15/11 15:05
13764A2SF	C110904-06		69W0	Surface Soil	2/15/11 15:50
13764A2SFX	C110904-07		69W1	Surface Soil	2/15/11 15:50
29844A2SF	C110904-08		69X2	Surface Soil	2/15/11 16:52
KM1501A2SF	C110904-09		69X3	Surface Soil	2/15/11 08:30
KMPP1SF	C110904-10		69P5	Surface Soil	2/15/11 17:00
KMWP01	C110904-11		69X4	Surface Soil	2/16/11 09:00
KMWP02	C110904-12		69X5	Surface Soil	2/17/11 12:30



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## DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
B-4	Level in blank impacts MRLs.
CLP01	Concentration reported is less than the lowest standard on calibration curve
CLP15	TIC Results Reported as Identified by Lab - IDs Not Verified
CLP16	Initial Calibration Response Erratic
J	The identification of the analyte is acceptable; the reported value is an estimate.
N	There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification.
NJ	Presumptive evidence that analyte is present; reported as a tentative identification with an estimated value.
QC-1	Analyte concentration low in continuing calibration verification standard
QC-2	Analyte concentration high in continuing calibration verification standard
QS-4	Surrogate recovery less than 10%
R	The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable.

## ACRONYMS AND ABBREVIATIONS

CAS	Chemical Abstracts Service  Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System ( <a href="http://www.epa.gov/srs">www.epa.gov/srs</a> ), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.
MDL	Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.
MRL	Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.
TIC	Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GA1SF

Lab ID: C110904-01

MD No:

Station ID: 12462GA1

Matrix: Surface Soil

D No: 69Q3 LIBRTY

Date Collected: 2/15/11 14:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	26		%		2/23/11	2/25/11	CLP BNA
1319-77-3	(3-and/or 4-)Methylphenol	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
92-52-4	1,1-Biphenyl	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
95-94-3	1,2,4,5-Tetrachlorobenzene	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
58-90-2	2,3,4,6-Tetrachlorophenol	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
95-95-4	2,4,5-Trichlorophenol	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
88-06-2	2,4,6-Trichlorophenol	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
120-83-2	2,4-Dichlorophenol	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
105-67-9	2,4-Dimethylphenol	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
51-28-5	2,4-Dinitrophenol	450	U, J, CLP16	ug/kg dry	450	2/23/11	2/25/11	CLP SOM01.2 B
121-14-2	2,4-Dinitrotoluene	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
606-20-2	2,6-Dinitrotoluene	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
91-58-7	2-Chloronaphthalene	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
95-57-8	2-Chlorophenol	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
534-52-1	2-Methyl-4,6-dinitrophenol	450	U	ug/kg dry	450	2/23/11	2/25/11	CLP SOM01.2 B
91-57-6	2-Methylnaphthalene	1.6	J, CLP01	ug/kg dry	4.5	2/23/11	3/03/11	CLP SOM01.2 BS
95-48-7	2-Methylphenol	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
88-74-4	2-Nitroaniline	450	U	ug/kg dry	450	2/23/11	2/25/11	CLP SOM01.2 B
88-75-5	2-Nitrophenol	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
91-94-1	3,3'-Dichlorobenzidine	230	U, J, QS-4	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
99-09-2	3-Nitroaniline	450	U	ug/kg dry	450	2/23/11	2/25/11	CLP SOM01.2 B
101-55-3	4-Bromophenyl phenyl ether	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
59-50-7	4-Chloro-3-methylphenol	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
106-47-8	4-Chloroaniline	230	U, J, QS-4	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
7005-72-3	4-Chlorophenyl phenyl ether	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
100-01-6	4-Nitroaniline	450	U	ug/kg dry	450	2/23/11	2/25/11	CLP SOM01.2 B
100-02-7	4-Nitrophenol	450	U, J, CLP16	ug/kg dry	450	2/23/11	2/25/11	CLP SOM01.2 B
83-32-9	Acenaphthene	1.6	J, CLP01	ug/kg dry	4.5	2/23/11	3/03/11	CLP SOM01.2 BS
208-96-8	Acenaphthylene	4.1	J, CLP01	ug/kg dry	4.5	2/23/11	3/03/11	CLP SOM01.2 BS
98-86-2	Acetophenone	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B



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## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GA1SF

Lab ID: C110904-01

MD No:

Station ID: 12462GA1

Matrix: Surface Soil

D No: 69Q3 LIBRTY

Date Collected: 2/15/11 14:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
120-12-7	Anthracene	7.7		ug/kg dry	4.5	2/23/11	3/03/11	CLP SOM01.2 BS
1912-24-9	Atrazine	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
100-52-7	Benzaldehyde	230	U, J, CLP16	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
56-55-3	Benzo(a)anthracene	58		ug/kg dry	31	2/23/11	3/03/11	CLP SOM01.2 BS
50-32-8	Benzo(a)pyrene	55		ug/kg dry	31	2/23/11	3/03/11	CLP SOM01.2 BS
205-99-2	Benzo(b)fluoranthene	130	J, QC-2	ug/kg dry	31	2/23/11	3/03/11	CLP SOM01.2 BS
191-24-2	Benzo(g,h,i)perylene	59	U, J, B-4, QC-1	ug/kg dry	31	2/23/11	3/03/11	CLP SOM01.2 BS
207-08-9	Benzo(k)fluoranthene	94		ug/kg dry	31	2/23/11	3/03/11	CLP SOM01.2 BS
85-68-7	Benzyl butyl phthalate	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
111-91-1	Bis(2-chloroethoxy)methane	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
111-44-4	bis(2-Chloroethyl) Ether	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
39638-32-9	Bis(2-chloroisopropyl) ether	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
117-81-7	Bis(2-ethylhexyl) phthalate	450		ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
105-60-2	Caprolactam	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
86-74-8	Carbazole	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
218-01-9	Chrysene	100		ug/kg dry	31	2/23/11	3/03/11	CLP SOM01.2 BS
53-70-3	Dibenzo(a,h)anthracene	13		ug/kg dry	4.5	2/23/11	3/03/11	CLP SOM01.2 BS
132-64-9	Dibenzofuran	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
84-66-2	Diethyl phthalate	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
131-11-3	Dimethyl phthalate	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
84-74-2	Di-n-butylphthalate	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
117-84-0	Di-n-octylphthalate	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
206-44-0	Fluoranthene	120		ug/kg dry	31	2/23/11	3/03/11	CLP SOM01.2 BS
86-73-7	Fluorene	1.8	J, CLP01	ug/kg dry	4.5	2/23/11	3/03/11	CLP SOM01.2 BS
118-74-1	Hexachlorobenzene (HCB)	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
87-68-3	Hexachlorobutadiene	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
77-47-4	Hexachlorocyclopentadiene (HCCP)	230	U, J, QS-4	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
67-72-1	Hexachloroethane	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
193-39-5	Indeno (1,2,3-cd) pyrene	86	J, QC-2	ug/kg dry	31	2/23/11	3/03/11	CLP SOM01.2 BS
78-59-1	Isophorone	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
91-20-3	Naphthalene	2.4	J, CLP01	ug/kg dry	4.5	2/23/11	3/03/11	CLP SOM01.2 BS



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## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GA1SF

Lab ID: C110904-01

MD No:

Station ID: 12462GA1

Matrix: Surface Soil

D No: 69Q3 LIBRTY

Date Collected: 2/15/11 14:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
98-95-3	Nitrobenzene	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
621-64-7	n-Nitroso di-n-Propylamine	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
87-86-5	Pentachlorophenol	33		ug/kg dry	9.1	2/23/11	3/03/11	CLP SOM01.2 BS
85-01-8	Phenanthrene	23		ug/kg dry	4.5	2/23/11	3/03/11	CLP SOM01.2 BS
108-95-2	Phenol	230	U	ug/kg dry	230	2/23/11	2/25/11	CLP SOM01.2 B
129-00-0	Pyrene	92	J, QC-1	ug/kg dry	31	2/23/11	3/03/11	CLP SOM01.2 BS
Tentatively Identified Compounds:								
1000214-17-4	5-Cholestene-3-ol, 24-methyl-	1000	NJ, CLP15	ug/kg dry	0	2/23/11	2/25/11	CLP SOM01.2 B
62016-79-9	Heptacosane, 1-chloro-	600	NJ, CLP15	ug/kg dry	0	2/23/11	2/25/11	CLP SOM01.2 B
57-10-3	n-Hexadecanoic acid	300	NJ, CLP15	ug/kg dry	0	2/23/11	2/25/11	CLP SOM01.2 B
R4-6500	Petroleum Product:		N, CLP15		0	2/23/11	2/25/11	CLP SOM01.2 B
R4-6501	Unidentified Compound(s)	3000	J, CLP15	ug/kg dry	0	2/23/11	2/25/11	CLP SOM01.2 B



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## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GB1SF

Lab ID: C110904-02

MD No:

Station ID: 12462GB1

Matrix: Surface Soil

D No: 69Q4 LIBRTY

Date Collected: 2/15/11 14:35

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	24		%		2/23/11	2/25/11	CLP BNA
1319-77-3	(3-and/or 4-)Methylphenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
92-52-4	1,1-Biphenyl	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
95-94-3	1,2,4,5-Tetrachlorobenzene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
58-90-2	2,3,4,6-Tetrachlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
95-95-4	2,4,5-Trichlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
88-06-2	2,4,6-Trichlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
120-83-2	2,4-Dichlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
105-67-9	2,4-Dimethylphenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
51-28-5	2,4-Dinitrophenol	430	U, J, CLP16	ug/kg dry	430	2/23/11	2/25/11	CLP SOM01.2 B
121-14-2	2,4-Dinitrotoluene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
606-20-2	2,6-Dinitrotoluene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
91-58-7	2-Chloronaphthalene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
95-57-8	2-Chlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
534-52-1	2-Methyl-4,6-dinitrophenol	430	U	ug/kg dry	430	2/23/11	2/25/11	CLP SOM01.2 B
91-57-6	2-Methylnaphthalene	4.3	U	ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
95-48-7	2-Methylphenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
88-74-4	2-Nitroaniline	430	U	ug/kg dry	430	2/23/11	2/25/11	CLP SOM01.2 B
88-75-5	2-Nitrophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
91-94-1	3,3'-Dichlorobenzidine	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
99-09-2	3-Nitroaniline	430	U	ug/kg dry	430	2/23/11	2/25/11	CLP SOM01.2 B
101-55-3	4-Bromophenyl phenyl ether	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
59-50-7	4-Chloro-3-methylphenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
106-47-8	4-Chloroaniline	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
7005-72-3	4-Chlorophenyl phenyl ether	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
100-01-6	4-Nitroaniline	430	U	ug/kg dry	430	2/23/11	2/25/11	CLP SOM01.2 B
100-02-7	4-Nitrophenol	430	U, J, CLP16	ug/kg dry	430	2/23/11	2/25/11	CLP SOM01.2 B
83-32-9	Acenaphthene	4.3	U	ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
208-96-8	Acenaphthylene	4.3	U	ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
98-86-2	Acetophenone	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 4 Science and Ecosystem Support Division  
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GB1SF

Lab ID: C110904-02

MD No:

Station ID: 12462GB1

Matrix: Surface Soil

D No: 69Q4 LIBRTY

Date Collected: 2/15/11 14:35

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
120-12-7	Anthracene	4.3	U	ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
1912-24-9	Atrazine	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
100-52-7	Benzaldehyde	220	U, J, CLP16	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
56-55-3	Benzo(a)anthracene	14		ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
50-32-8	Benzo(a)pyrene	15	U, B-4	ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
205-99-2	Benzo(b)fluoranthene	39		ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
191-24-2	Benzo(g,h,i)perylene	13	U, J, B-4, QC-1	ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
207-08-9	Benzo(k)fluoranthene	26		ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
85-68-7	Benzyl butyl phthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
111-91-1	Bis(2-chloroethoxy)methane	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
111-44-4	bis(2-Chloroethyl) Ether	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
39638-32-9	Bis(2-chloroisopropyl) ether	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
117-81-7	Bis(2-ethylhexyl) phthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
105-60-2	Caprolactam	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
86-74-8	Carbazole	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
218-01-9	Chrysene	30		ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
53-70-3	Dibenzo(a,h)anthracene	2.5	J, CLP01	ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
132-64-9	Dibenzofuran	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
84-66-2	Diethyl phthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
131-11-3	Dimethyl phthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
84-74-2	Di-n-butylphthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
117-84-0	Di-n-octylphthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
206-44-0	Fluoranthene	32		ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
86-73-7	Fluorene	4.3	U	ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
118-74-1	Hexachlorobenzene (HCB)	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
87-68-3	Hexachlorobutadiene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
77-47-4	Hexachlorocyclopentadiene (HCCP)	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
67-72-1	Hexachloroethane	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
193-39-5	Indeno (1,2,3-cd) pyrene	19		ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
78-59-1	Isophorone	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
91-20-3	Naphthalene	1.2	J, CLP01	ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS





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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GB1SF

Lab ID: C110904-02

MD No:

Station ID: 12462GB1

Matrix: Surface Soil

D No: 69Q4 LIBRTY

Date Collected: 2/15/11 14:35

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
98-95-3	Nitrobenzene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
621-64-7	n-Nitroso di-n-Propylamine	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
87-86-5	Pentachlorophenol	8.8	U	ug/kg dry	8.8	2/23/11	3/03/11	CLP SOM01.2 BS
85-01-8	Phenanthrene	5.7		ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
108-95-2	Phenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
129-00-0	Pyrene	22	J, QC-1	ug/kg dry	4.3	2/23/11	3/03/11	CLP SOM01.2 BS
Tentatively Identified Compounds:								
73105-67-6	1-Iodo-2-methylundecane	300	NJ, CLP15	ug/kg dry	0	2/23/11	2/25/11	CLP SOM01.2 B
R4-6500	Petroleum Product:		N, CLP15		0	2/23/11	2/25/11	CLP SOM01.2 B
638-53-9	Tridecanoic acid	200	NJ, CLP15	ug/kg dry	0	2/23/11	2/25/11	CLP SOM01.2 B
R4-6501	Unidentified Compound(s)	1000	J, CLP15	ug/kg dry	0	2/23/11	2/25/11	CLP SOM01.2 B



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12463GB2SF

Lab ID: C110904-03

MD No:

Station ID: 12462GB2

Matrix: Surface Soil

D No: 69Q5 LIBRTY

Date Collected: 2/15/11 15:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	24		%		2/23/11	2/25/11	CLP BNA
1319-77-3	(3-and/or 4-)Methylphenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
92-52-4	1,1-Biphenyl	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
95-94-3	1,2,4,5-Tetrachlorobenzene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
58-90-2	2,3,4,6-Tetrachlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
95-95-4	2,4,5-Trichlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
88-06-2	2,4,6-Trichlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
120-83-2	2,4-Dichlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
105-67-9	2,4-Dimethylphenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
51-28-5	2,4-Dinitrophenol	440	U, J, CLP16	ug/kg dry	440	2/23/11	2/25/11	CLP SOM01.2 B
121-14-2	2,4-Dinitrotoluene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
606-20-2	2,6-Dinitrotoluene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
91-58-7	2-Chloronaphthalene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
95-57-8	2-Chlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
534-52-1	2-Methyl-4,6-dinitrophenol	440	U	ug/kg dry	440	2/23/11	2/25/11	CLP SOM01.2 B
91-57-6	2-Methylnaphthalene	4.4		ug/kg dry	4.4	2/23/11	3/03/11	CLP SOM01.2 BS
95-48-7	2-Methylphenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
88-74-4	2-Nitroaniline	440	U	ug/kg dry	440	2/23/11	2/25/11	CLP SOM01.2 B
88-75-5	2-Nitrophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
91-94-1	3,3'-Dichlorobenzidine	220	U, R, QS-4	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
99-09-2	3-Nitroaniline	440	U	ug/kg dry	440	2/23/11	2/25/11	CLP SOM01.2 B
101-55-3	4-Bromophenyl phenyl ether	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
59-50-7	4-Chloro-3-methylphenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
106-47-8	4-Chloroaniline	220	U, R, QS-4	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
7005-72-3	4-Chlorophenyl phenyl ether	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
100-01-6	4-Nitroaniline	440	U	ug/kg dry	440	2/23/11	2/25/11	CLP SOM01.2 B
100-02-7	4-Nitrophenol	440	U, J, CLP16	ug/kg dry	440	2/23/11	2/25/11	CLP SOM01.2 B
83-32-9	Acenaphthene	17		ug/kg dry	4.4	2/23/11	3/03/11	CLP SOM01.2 BS
208-96-8	Acenaphthylene	5.9		ug/kg dry	4.4	2/23/11	3/03/11	CLP SOM01.2 BS
98-86-2	Acetophenone	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12463GB2SF

Lab ID: C110904-03

MD No:

Station ID: 12462GB2

Matrix: Surface Soil

D No: 69Q5 LIBRTY

Date Collected: 2/15/11 15:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
120-12-7	Anthracene	63		ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
1912-24-9	Atrazine	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
100-52-7	Benzaldehyde	220	U, J, CLP16	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
56-55-3	Benzo(a)anthracene	330		ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
50-32-8	Benzo(a)pyrene	330		ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
205-99-2	Benzo(b)fluoranthene	430		ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
191-24-2	Benzo(g,h,i)perylene	120	U, J, B-4, QC-1	ug/kg dry	4.4	2/23/11	3/03/11	CLP SOM01.2 BS
207-08-9	Benzo(k)fluoranthene	340		ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
85-68-7	Benzyl butyl phthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
111-91-1	Bis(2-chloroethoxy)methane	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
111-44-4	bis(2-Chloroethyl) Ether	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
39638-32-9	Bis(2-chloroisopropyl) ether	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
117-81-7	Bis(2-ethylhexyl) phthalate	450		ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
105-60-2	Caprolactam	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
86-74-8	Carbazole	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
218-01-9	Chrysene	390		ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
53-70-3	Dibenzo(a,h)anthracene	55		ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
132-64-9	Dibenzofuran	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
84-66-2	Diethyl phthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
131-11-3	Dimethyl phthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
84-74-2	Di-n-butylphthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
117-84-0	Di-n-octylphthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
206-44-0	Fluoranthene	720		ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
86-73-7	Fluorene	21		ug/kg dry	4.4	2/23/11	3/03/11	CLP SOM01.2 BS
118-74-1	Hexachlorobenzene (HCB)	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
87-68-3	Hexachlorobutadiene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
77-47-4	Hexachlorocyclopentadiene (HCCP)	220	U, R, QS-4	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
67-72-1	Hexachloroethane	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
193-39-5	Indeno (1,2,3-cd) pyrene	230		ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
78-59-1	Isophorone	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
91-20-3	Naphthalene	7.0		ug/kg dry	4.4	2/23/11	3/03/11	CLP SOM01.2 BS



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D.A.R.T. Id: 11-0019

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## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12463GB2SF

Lab ID: C110904-03

MD No:

Station ID: 12462GB2

Matrix: Surface Soil

D No: 69Q5 LIBRTY

Date Collected: 2/15/11 15:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
98-95-3	Nitrobenzene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
621-64-7	n-Nitroso di-n-Propylamine	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
87-86-5	Pentachlorophenol	9.2		ug/kg dry	8.9	2/23/11	3/03/11	CLP SOM01.2 BS
85-01-8	Phenanthrene	310		ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
108-95-2	Phenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
129-00-0	Pyrene	520		ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
Tentatively Identified Compounds:								
192-97-2	Benzo[e]pyrene	400	NJ, CLP15	ug/kg dry	0	2/23/11	2/25/11	CLP SOM01.2 B
R4-6500	Petroleum Product:		N, CLP15		0	2/23/11	2/25/11	CLP SOM01.2 B
R4-6501	Unidentified Compound(s)	800	J, CLP15	ug/kg dry	0	2/23/11	2/25/11	CLP SOM01.2 B



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12463GC1SF

Lab ID: C110904-04

MD No:

Station ID: 12462GC1

Matrix: Surface Soil

D No: 69Q7 LIBRTY

Date Collected: 2/15/11 14:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	16		%		2/23/11	2/26/11	CLP BNA
1319-77-3	(3-and/or 4-)Methylphenol	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
92-52-4	1,1-Biphenyl	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
95-94-3	1,2,4,5-Tetrachlorobenzene	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
58-90-2	2,3,4,6-Tetrachlorophenol	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
95-95-4	2,4,5-Trichlorophenol	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
88-06-2	2,4,6-Trichlorophenol	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
120-83-2	2,4-Dichlorophenol	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
105-67-9	2,4-Dimethylphenol	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
51-28-5	2,4-Dinitrophenol	390	U, J, CLP16	ug/kg dry	390	2/23/11	2/26/11	CLP SOM01.2 B
121-14-2	2,4-Dinitrotoluene	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
606-20-2	2,6-Dinitrotoluene	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
91-58-7	2-Chloronaphthalene	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
95-57-8	2-Chlorophenol	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
534-52-1	2-Methyl-4,6-dinitrophenol	390	U	ug/kg dry	390	2/23/11	2/26/11	CLP SOM01.2 B
91-57-6	2-Methylnaphthalene	0.74	J, CLP01	ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
95-48-7	2-Methylphenol	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
88-74-4	2-Nitroaniline	390	U	ug/kg dry	390	2/23/11	2/26/11	CLP SOM01.2 B
88-75-5	2-Nitrophenol	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
91-94-1	3,3'-Dichlorobenzidine	200	U, R, QS-4	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
99-09-2	3-Nitroaniline	390	U	ug/kg dry	390	2/23/11	2/26/11	CLP SOM01.2 B
101-55-3	4-Bromophenyl phenyl ether	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
59-50-7	4-Chloro-3-methylphenol	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
106-47-8	4-Chloroaniline	200	U, R, QS-4	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
7005-72-3	4-Chlorophenyl phenyl ether	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
100-01-6	4-Nitroaniline	390	U	ug/kg dry	390	2/23/11	2/26/11	CLP SOM01.2 B
100-02-7	4-Nitrophenol	390	U, J, CLP16	ug/kg dry	390	2/23/11	2/26/11	CLP SOM01.2 B
83-32-9	Acenaphthene	3.9	U	ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
208-96-8	Acenaphthylene	3.9	U	ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
98-86-2	Acetophenone	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 4 Science and Ecosystem Support Division  
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12463GC1SF

Lab ID: C110904-04

MD No:

Station ID: 12462GC1

Matrix: Surface Soil

D No: 69Q7 LIBRTY

Date Collected: 2/15/11 14:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
120-12-7	Anthracene	3.9	U	ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
1912-24-9	Atrazine	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
100-52-7	Benzaldehyde	200	U, J, CLP16	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
56-55-3	Benzo(a)anthracene	9.9		ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
50-32-8	Benzo(a)pyrene	9.4	U, B-4	ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
205-99-2	Benzo(b)fluoranthene	35		ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
191-24-2	Benzo(g,h,i)perylene	7.1	U, J, B-4, QC-1	ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
207-08-9	Benzo(k)fluoranthene	27		ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
85-68-7	Benzyl butyl phthalate	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
111-91-1	Bis(2-chloroethoxy)methane	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
111-44-4	bis(2-Chloroethyl) Ether	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
39638-32-9	Bis(2-chloroisopropyl) ether	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
117-81-7	Bis(2-ethylhexyl) phthalate	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
105-60-2	Caprolactam	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
86-74-8	Carbazole	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
218-01-9	Chrysene	26		ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
53-70-3	Dibenzo(a,h)anthracene	2.8	J, CLP01	ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
132-64-9	Dibenzofuran	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
84-66-2	Diethyl phthalate	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
131-11-3	Dimethyl phthalate	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
84-74-2	Di-n-butylphthalate	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
117-84-0	Di-n-octylphthalate	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
206-44-0	Fluoranthene	30		ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
86-73-7	Fluorene	3.9	U	ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
118-74-1	Hexachlorobenzene (HCB)	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
87-68-3	Hexachlorobutadiene	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
77-47-4	Hexachlorocyclopentadiene (HCCP)	200	U, R, QS-4	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
67-72-1	Hexachloroethane	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
193-39-5	Indeno (1,2,3-cd) pyrene	16		ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
78-59-1	Isophorone	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
91-20-3	Naphthalene	1.0	J, CLP01	ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12463GC1SF

Lab ID: C110904-04

MD No:

Station ID: 12462GC1

Matrix: Surface Soil

D No: 69Q7 LIBRTY

Date Collected: 2/15/11 14:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
98-95-3	Nitrobenzene	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
621-64-7	n-Nitroso di-n-Propylamine	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
87-86-5	Pentachlorophenol	8.0	U	ug/kg dry	8.0	2/23/11	3/03/11	CLP SOM01.2 BS
85-01-8	Phenanthrene	5.2		ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
108-95-2	Phenol	200	U	ug/kg dry	200	2/23/11	2/26/11	CLP SOM01.2 B
129-00-0	Pyrene	24	J, QC-1	ug/kg dry	3.9	2/23/11	3/03/11	CLP SOM01.2 BS
Tentatively Identified Compounds:								
62016-79-9	Heptacosane, 1-chloro-	200	NJ, CLP15	ug/kg dry	0	2/23/11	2/26/11	CLP SOM01.2 B
R4-6500	Petroleum Product:		N, CLP15		0	2/23/11	2/26/11	CLP SOM01.2 B
R4-6501	Unidentified Compound(s)	600	J, CLP15	ug/kg dry	0	2/23/11	2/26/11	CLP SOM01.2 B





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## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GC2SF

Lab ID: C110904-05

MD No:

Station ID: 12462GC2

Matrix: Surface Soil

D No: 69Q6 LIBRTY

Date Collected: 2/15/11 15:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	24		%		2/23/11	2/26/11	CLP BNA
1319-77-3	(3-and/or 4-)Methylphenol	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
92-52-4	1,1-Biphenyl	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
95-94-3	1,2,4,5-Tetrachlorobenzene	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
58-90-2	2,3,4,6-Tetrachlorophenol	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
95-95-4	2,4,5-Trichlorophenol	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
88-06-2	2,4,6-Trichlorophenol	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
120-83-2	2,4-Dichlorophenol	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
105-67-9	2,4-Dimethylphenol	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
51-28-5	2,4-Dinitrophenol	430	U, J, CLP16	ug/kg dry	430	2/23/11	2/26/11	CLP SOM01.2 B
121-14-2	2,4-Dinitrotoluene	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
606-20-2	2,6-Dinitrotoluene	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
91-58-7	2-Chloronaphthalene	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
95-57-8	2-Chlorophenol	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
534-52-1	2-Methyl-4,6-dinitrophenol	430	U	ug/kg dry	430	2/23/11	2/26/11	CLP SOM01.2 B
91-57-6	2-Methylnaphthalene	22	U	ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
95-48-7	2-Methylphenol	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
88-74-4	2-Nitroaniline	430	U	ug/kg dry	430	2/23/11	2/26/11	CLP SOM01.2 B
88-75-5	2-Nitrophenol	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
91-94-1	3,3'-Dichlorobenzidine	220	U, R, QS-4	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
99-09-2	3-Nitroaniline	430	U	ug/kg dry	430	2/23/11	2/26/11	CLP SOM01.2 B
101-55-3	4-Bromophenyl phenyl ether	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
59-50-7	4-Chloro-3-methylphenol	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
106-47-8	4-Chloroaniline	220	U, R, QS-4	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
7005-72-3	4-Chlorophenyl phenyl ether	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
100-01-6	4-Nitroaniline	430	U	ug/kg dry	430	2/23/11	2/26/11	CLP SOM01.2 B
100-02-7	4-Nitrophenol	430	U, J, CLP16	ug/kg dry	430	2/23/11	2/26/11	CLP SOM01.2 B
83-32-9	Acenaphthene	22	U	ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
208-96-8	Acenaphthylene	22	U	ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
98-86-2	Acetophenone	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B





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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GC2SF

Lab ID: C110904-05

MD No:

Station ID: 12462GC2

Matrix: Surface Soil

D No: 69Q6 LIBRTY

Date Collected: 2/15/11 15:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
120-12-7	Anthracene	22	U	ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
1912-24-9	Atrazine	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
100-52-7	Benzaldehyde	220	U, J, CLP16	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
56-55-3	Benzo(a)anthracene	38		ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
50-32-8	Benzo(a)pyrene	34		ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
205-99-2	Benzo(b)fluoranthene	120	J, QC-2	ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
191-24-2	Benzo(g,h,i)perylene	23	U, B-4	ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
207-08-9	Benzo(k)fluoranthene	81		ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
85-68-7	Benzyl butyl phthalate	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
111-91-1	Bis(2-chloroethoxy)methane	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
111-44-4	bis(2-Chloroethyl) Ether	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
39638-32-9	Bis(2-chloroisopropyl) ether	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
117-81-7	Bis(2-ethylhexyl) phthalate	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
105-60-2	Caprolactam	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
86-74-8	Carbazole	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
218-01-9	Chrysene	91		ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
53-70-3	Dibenzo(a,h)anthracene	11	J, CLP01	ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
132-64-9	Dibenzofuran	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
84-66-2	Diethyl phthalate	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
131-11-3	Dimethyl phthalate	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
84-74-2	Di-n-butylphthalate	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
117-84-0	Di-n-octylphthalate	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
206-44-0	Fluoranthene	110		ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
86-73-7	Fluorene	22	U	ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
118-74-1	Hexachlorobenzene (HCB)	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
87-68-3	Hexachlorobutadiene	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
77-47-4	Hexachlorocyclopentadiene (HCCP)	220	U, R, QS-4	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
67-72-1	Hexachloroethane	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
193-39-5	Indeno (1,2,3-cd) pyrene	65	J, QC-2	ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
78-59-1	Isophorone	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
91-20-3	Naphthalene	22	U	ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS



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D.A.R.T. Id: 11-0019

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## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GC2SF

Lab ID: C110904-05

MD No:

Station ID: 12462GC2

Matrix: Surface Soil

D No: 69Q6 LIBRTY

Date Collected: 2/15/11 15:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
98-95-3	Nitrobenzene	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
621-64-7	n-Nitroso di-n-Propylamine	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
87-86-5	Pentachlorophenol	44	U	ug/kg dry	44	2/23/11	3/03/11	CLP SOM01.2 BS
85-01-8	Phenanthrene	15	J, CLP01	ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
108-95-2	Phenol	220	U	ug/kg dry	220	2/23/11	2/26/11	CLP SOM01.2 B
129-00-0	Pyrene	70	J, QC-1	ug/kg dry	22	2/23/11	3/03/11	CLP SOM01.2 BS
Tentatively Identified Compounds:								
474-62-4	Campesterol	900	NJ, CLP15	ug/kg dry	0	2/23/11	2/26/11	CLP SOM01.2 B
62016-76-6	Nonadecane, 1-chloro-	200	NJ, CLP15	ug/kg dry	0	2/23/11	2/26/11	CLP SOM01.2 B
R4-6500	Petroleum Product:		N, CLP15		0	2/23/11	2/26/11	CLP SOM01.2 B
R4-6501	Unidentified Compound(s)	500	J, CLP15	ug/kg dry	0	2/23/11	2/26/11	CLP SOM01.2 B



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 4 Science and Ecosystem Support Division  
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13764A2SF

Lab ID: C110904-06

MD No:

Station ID: 13764

Matrix: Surface Soil

D No: 69W0 LIBRTY

Date Collected: 2/15/11 15:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/23/11	2/26/11	CLP BNA
1319-77-3	(3-and/or 4-)Methylphenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
92-52-4	1,1-Biphenyl	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
95-94-3	1,2,4,5-Tetrachlorobenzene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
58-90-2	2,3,4,6-Tetrachlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
95-95-4	2,4,5-Trichlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
88-06-2	2,4,6-Trichlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
120-83-2	2,4-Dichlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
105-67-9	2,4-Dimethylphenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
51-28-5	2,4-Dinitrophenol	410	U, J, CLP16	ug/kg dry	410	2/23/11	2/26/11	CLP SOM01.2 B
121-14-2	2,4-Dinitrotoluene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
606-20-2	2,6-Dinitrotoluene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
91-58-7	2-Chloronaphthalene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
95-57-8	2-Chlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
534-52-1	2-Methyl-4,6-dinitrophenol	410	U	ug/kg dry	410	2/23/11	2/26/11	CLP SOM01.2 B
91-57-6	2-Methylnaphthalene	17	U	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
95-48-7	2-Methylphenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
88-74-4	2-Nitroaniline	410	U	ug/kg dry	410	2/23/11	2/26/11	CLP SOM01.2 B
88-75-5	2-Nitrophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
91-94-1	3,3'-Dichlorobenzidine	210	U, R, QS-4	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
99-09-2	3-Nitroaniline	410	U	ug/kg dry	410	2/23/11	2/26/11	CLP SOM01.2 B
101-55-3	4-Bromophenyl phenyl ether	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
59-50-7	4-Chloro-3-methylphenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
106-47-8	4-Chloroaniline	210	U, R, QS-4	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
7005-72-3	4-Chlorophenyl phenyl ether	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
100-01-6	4-Nitroaniline	410	U	ug/kg dry	410	2/23/11	2/26/11	CLP SOM01.2 B
100-02-7	4-Nitrophenol	410	U, J, CLP16	ug/kg dry	410	2/23/11	2/26/11	CLP SOM01.2 B
83-32-9	Acenaphthene	17	U	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
208-96-8	Acenaphthylene	17	U	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
98-86-2	Acetophenone	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B



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Contract Lab Case: 41017

Sample ID: 13764A2SF

Lab ID: C110904-06

MD No:

Station ID: 13764

Matrix: Surface Soil

D No: 69W0 LIBRTY

Date Collected: 2/15/11 15:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
120-12-7	Anthracene	17	U	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
1912-24-9	Atrazine	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
100-52-7	Benzaldehyde	210	U, J, CLP16	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
56-55-3	Benzo(a)anthracene	42		ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
50-32-8	Benzo(a)pyrene	34		ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
205-99-2	Benzo(b)fluoranthene	64		ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
191-24-2	Benzo(g,h,i)perylene	18	U, J, B-4, QC-1	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
207-08-9	Benzo(k)fluoranthene	58		ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
85-68-7	Benzyl butyl phthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
111-91-1	Bis(2-chloroethoxy)methane	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
111-44-4	bis(2-Chloroethyl) Ether	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
39638-32-9	Bis(2-chloroisopropyl) ether	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
117-81-7	Bis(2-ethylhexyl) phthalate	250	J, QC-2	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
105-60-2	Caprolactam	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
86-74-8	Carbazole	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
218-01-9	Chrysene	56		ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
53-70-3	Dibenzo(a,h)anthracene	9.9	J, CLP01	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
132-64-9	Dibenzofuran	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
84-66-2	Diethyl phthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
131-11-3	Dimethyl phthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
84-74-2	Di-n-butylphthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
117-84-0	Di-n-octylphthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
206-44-0	Fluoranthene	110		ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
86-73-7	Fluorene	17	U	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
118-74-1	Hexachlorobenzene (HCB)	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
87-68-3	Hexachlorobutadiene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
77-47-4	Hexachlorocyclopentadiene (HCCP)	210	U, R, QS-4	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
67-72-1	Hexachloroethane	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
193-39-5	Indeno (1,2,3-cd) pyrene	44		ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
78-59-1	Isophorone	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
91-20-3	Naphthalene	17	U	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS



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Contract Lab Case: 41017

Sample ID: 13764A2SF

Lab ID: C110904-06

MD No:

Station ID: 13764

Matrix: Surface Soil

D No: 69W0 LIBRTY

Date Collected: 2/15/11 15:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
98-95-3	Nitrobenzene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
621-64-7	n-Nitroso di-n-Propylamine	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
87-86-5	Pentachlorophenol	34	U	ug/kg dry	34	2/23/11	3/03/11	CLP SOM01.2 BS
85-01-8	Phenanthrene	37		ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
108-95-2	Phenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
129-00-0	Pyrene	71	J, QC-1	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
Tentatively Identified Compounds:								
R4-6500	Petroleum Product:		N, CLP15		0	2/23/11	2/26/11	CLP SOM01.2 B
544-63-8	Tetradecanoic Acid	400	NJ, CLP15	ug/kg dry	0	2/23/11	2/26/11	CLP SOM01.2 B
R4-6501	Unidentified Compound(s)	4000	J, CLP15	ug/kg dry	0	2/23/11	2/26/11	CLP SOM01.2 B



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## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13764A2SFX

Lab ID: C110904-07

MD No:

Station ID: 13764

Matrix: Surface Soil

D No: 69W1 LIBRTY

Date Collected: 2/15/11 15:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	18		%		2/23/11	2/26/11	CLP BNA
1319-77-3	(3-and/or 4-)Methylphenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
92-52-4	1,1-Biphenyl	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
95-94-3	1,2,4,5-Tetrachlorobenzene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
58-90-2	2,3,4,6-Tetrachlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
95-95-4	2,4,5-Trichlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
88-06-2	2,4,6-Trichlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
120-83-2	2,4-Dichlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
105-67-9	2,4-Dimethylphenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
51-28-5	2,4-Dinitrophenol	400	U, J, CLP16	ug/kg dry	400	2/23/11	2/26/11	CLP SOM01.2 B
121-14-2	2,4-Dinitrotoluene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
606-20-2	2,6-Dinitrotoluene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
91-58-7	2-Chloronaphthalene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
95-57-8	2-Chlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
534-52-1	2-Methyl-4,6-dinitrophenol	400	U	ug/kg dry	400	2/23/11	2/26/11	CLP SOM01.2 B
91-57-6	2-Methylnaphthalene	16	U	ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
95-48-7	2-Methylphenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
88-74-4	2-Nitroaniline	400	U	ug/kg dry	400	2/23/11	2/26/11	CLP SOM01.2 B
88-75-5	2-Nitrophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
91-94-1	3,3'-Dichlorobenzidine	210	U, R, QS-4	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
99-09-2	3-Nitroaniline	400	U	ug/kg dry	400	2/23/11	2/26/11	CLP SOM01.2 B
101-55-3	4-Bromophenyl phenyl ether	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
59-50-7	4-Chloro-3-methylphenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
106-47-8	4-Chloroaniline	210	U, R, QS-4	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
7005-72-3	4-Chlorophenyl phenyl ether	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
100-01-6	4-Nitroaniline	400	U	ug/kg dry	400	2/23/11	2/26/11	CLP SOM01.2 B
100-02-7	4-Nitrophenol	400	U, J, CLP16	ug/kg dry	400	2/23/11	2/26/11	CLP SOM01.2 B
83-32-9	Acenaphthene	16	U	ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
208-96-8	Acenaphthylene	16	U	ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
98-86-2	Acetophenone	52	J, CLP01	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B



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Contract Lab Case: 41017

Sample ID: 13764A2SFX

Lab ID: C110904-07

MD No:

Station ID: 13764

Matrix: Surface Soil

D No: 69W1 LIBRTY

Date Collected: 2/15/11 15:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
120-12-7	Anthracene	16	U	ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
1912-24-9	Atrazine	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
100-52-7	Benzaldehyde	210	U, J, CLP16	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
56-55-3	Benzo(a)anthracene	39		ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
50-32-8	Benzo(a)pyrene	32		ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
205-99-2	Benzo(b)fluoranthene	60		ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
191-24-2	Benzo(g,h,i)perylene	17	U, J, B-4, QC-1	ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
207-08-9	Benzo(k)fluoranthene	53		ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
85-68-7	Benzyl butyl phthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
111-91-1	Bis(2-chloroethoxy)methane	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
111-44-4	bis(2-Chloroethyl) Ether	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
39638-32-9	Bis(2-chloroisopropyl) ether	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
117-81-7	Bis(2-ethylhexyl) phthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
105-60-2	Caprolactam	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
86-74-8	Carbazole	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
218-01-9	Chrysene	52		ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
53-70-3	Dibenzo(a,h)anthracene	9.0	J, CLP01	ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
132-64-9	Dibenzofuran	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
84-66-2	Diethyl phthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
131-11-3	Dimethyl phthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
84-74-2	Di-n-butylphthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
117-84-0	Di-n-octylphthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
206-44-0	Fluoranthene	110		ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
86-73-7	Fluorene	16	U	ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
118-74-1	Hexachlorobenzene (HCB)	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
87-68-3	Hexachlorobutadiene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
77-47-4	Hexachlorocyclopentadiene (HCCP)	210	U, R, QS-4	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
67-72-1	Hexachloroethane	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
193-39-5	Indeno (1,2,3-cd) pyrene	39		ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
78-59-1	Isophorone	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
91-20-3	Naphthalene	16	U	ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS





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Matrix: Surface Soil

D No: 69W1 LIBRTY

Date Collected: 2/15/11 15:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
98-95-3	Nitrobenzene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
621-64-7	n-Nitroso di-n-Propylamine	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
87-86-5	Pentachlorophenol	33	U	ug/kg dry	33	2/23/11	3/03/11	CLP SOM01.2 BS
85-01-8	Phenanthrene	36		ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
108-95-2	Phenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
129-00-0	Pyrene	68	J, QC-1	ug/kg dry	16	2/23/11	3/03/11	CLP SOM01.2 BS
Tentatively Identified Compounds:								
4282-42-2	Nonane, 1-iodo-	500	NJ, CLP15	ug/kg dry	0	2/23/11	2/26/11	CLP SOM01.2 B
R4-6500	Petroleum Product:		N, CLP15		0	2/23/11	2/26/11	CLP SOM01.2 B
R4-6501	Unidentified Compound(s)	5000	J, CLP15	ug/kg dry	0	2/23/11	2/26/11	CLP SOM01.2 B





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 4 Science and Ecosystem Support Division  
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 29844A2SF

Lab ID: C110904-08

MD No:

Station ID: 29844

Matrix: Surface Soil

D No: 69X2 LIBRTY

Date Collected: 2/15/11 16:52

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	19		%		2/23/11	2/26/11	CLP BNA
1319-77-3	(3-and/or 4-)Methylphenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
92-52-4	1,1-Biphenyl	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
95-94-3	1,2,4,5-Tetrachlorobenzene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
58-90-2	2,3,4,6-Tetrachlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
95-95-4	2,4,5-Trichlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
88-06-2	2,4,6-Trichlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
120-83-2	2,4-Dichlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
105-67-9	2,4-Dimethylphenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
51-28-5	2,4-Dinitrophenol	410	U, J, CLP16	ug/kg dry	410	2/23/11	2/26/11	CLP SOM01.2 B
121-14-2	2,4-Dinitrotoluene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
606-20-2	2,6-Dinitrotoluene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
91-58-7	2-Chloronaphthalene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
95-57-8	2-Chlorophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
534-52-1	2-Methyl-4,6-dinitrophenol	410	U	ug/kg dry	410	2/23/11	2/26/11	CLP SOM01.2 B
91-57-6	2-Methylnaphthalene	20	U	ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
95-48-7	2-Methylphenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
88-74-4	2-Nitroaniline	410	U	ug/kg dry	410	2/23/11	2/26/11	CLP SOM01.2 B
88-75-5	2-Nitrophenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
91-94-1	3,3'-Dichlorobenzidine	210	U, R, QS-4	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
99-09-2	3-Nitroaniline	410	U	ug/kg dry	410	2/23/11	2/26/11	CLP SOM01.2 B
101-55-3	4-Bromophenyl phenyl ether	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
59-50-7	4-Chloro-3-methylphenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
106-47-8	4-Chloroaniline	210	U, R, QS-4	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
7005-72-3	4-Chlorophenyl phenyl ether	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
100-01-6	4-Nitroaniline	410	U	ug/kg dry	410	2/23/11	2/26/11	CLP SOM01.2 B
100-02-7	4-Nitrophenol	410	U, J, CLP16	ug/kg dry	410	2/23/11	2/26/11	CLP SOM01.2 B
83-32-9	Acenaphthene	20	U	ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
208-96-8	Acenaphthylene	4.3	J, CLP01	ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
98-86-2	Acetophenone	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B



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Contract Lab Case: 41017

Sample ID: 29844A2SF

Lab ID: C110904-08

MD No:

Station ID: 29844

Matrix: Surface Soil

D No: 69X2 LIBRTY

Date Collected: 2/15/11 16:52

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
120-12-7	Anthracene	20	U	ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
1912-24-9	Atrazine	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
100-52-7	Benzaldehyde	210	U, J, CLP16	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
56-55-3	Benzo(a)anthracene	50		ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
50-32-8	Benzo(a)pyrene	51		ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
205-99-2	Benzo(b)fluoranthene	110		ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
191-24-2	Benzo(g,h,i)perylene	28	U, J, B-4, QC-1	ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
207-08-9	Benzo(k)fluoranthene	100		ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
85-68-7	Benzyl butyl phthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
111-91-1	Bis(2-chloroethoxy)methane	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
111-44-4	bis(2-Chloroethyl) Ether	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
39638-32-9	Bis(2-chloroisopropyl) ether	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
117-81-7	Bis(2-ethylhexyl) phthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
105-60-2	Caprolactam	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
86-74-8	Carbazole	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
218-01-9	Chrysene	80		ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
53-70-3	Dibenzo(a,h)anthracene	16	J, CLP01	ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
132-64-9	Dibenzofuran	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
84-66-2	Diethyl phthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
131-11-3	Dimethyl phthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
84-74-2	Di-n-butylphthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
117-84-0	Di-n-octylphthalate	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
206-44-0	Fluoranthene	140		ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
86-73-7	Fluorene	20	U	ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
118-74-1	Hexachlorobenzene (HCB)	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
87-68-3	Hexachlorobutadiene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
77-47-4	Hexachlorocyclopentadiene (HCCP)	210	U, R, QS-4	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
67-72-1	Hexachloroethane	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
193-39-5	Indeno (1,2,3-cd) pyrene	70		ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
78-59-1	Isophorone	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
91-20-3	Naphthalene	20	U	ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS



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## Semi Volatile Organics

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Contract Lab Case: 41017

Sample ID: 29844A2SF

Lab ID: C110904-08

MD No:

Station ID: 29844

Matrix: Surface Soil

D No: 69X2 LIBRTY

Date Collected: 2/15/11 16:52

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
98-95-3	Nitrobenzene	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
621-64-7	n-Nitroso di-n-Propylamine	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
87-86-5	Pentachlorophenol	41	U	ug/kg dry	41	2/23/11	3/03/11	CLP SOM01.2 BS
85-01-8	Phenanthrene	92		ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
108-95-2	Phenol	210	U	ug/kg dry	210	2/23/11	2/26/11	CLP SOM01.2 B
129-00-0	Pyrene	86	J, QC-1	ug/kg dry	20	2/23/11	3/03/11	CLP SOM01.2 BS
<b>Tentatively Identified Compounds:</b>								
R4-6500	Petroleum Product:	N, CLP15			0	2/23/11	2/26/11	CLP SOM01.2 B
R4-6501	Unidentified Compound(s)	800	J, CLP15	ug/kg dry	0	2/23/11	2/26/11	CLP SOM01.2 B



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## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KM1501A2SF

Lab ID: C110904-09

MD No:

Station ID: KM1501

Matrix: Surface Soil

D No: 69X3 LIBRTY

Date Collected: 2/15/11 8:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	22		%		2/23/11	2/25/11	CLP BNA
1319-77-3	(3-and/or 4-)Methylphenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
92-52-4	1,1-Biphenyl	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
95-94-3	1,2,4,5-Tetrachlorobenzene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
58-90-2	2,3,4,6-Tetrachlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
95-95-4	2,4,5-Trichlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
88-06-2	2,4,6-Trichlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
120-83-2	2,4-Dichlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
105-67-9	2,4-Dimethylphenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
51-28-5	2,4-Dinitrophenol	420	U, J, CLP16	ug/kg dry	420	2/23/11	2/25/11	CLP SOM01.2 B
121-14-2	2,4-Dinitrotoluene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
606-20-2	2,6-Dinitrotoluene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
91-58-7	2-Chloronaphthalene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
95-57-8	2-Chlorophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
534-52-1	2-Methyl-4,6-dinitrophenol	420	U	ug/kg dry	420	2/23/11	2/25/11	CLP SOM01.2 B
91-57-6	2-Methylnaphthalene	17	U	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
95-48-7	2-Methylphenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
88-74-4	2-Nitroaniline	420	U	ug/kg dry	420	2/23/11	2/25/11	CLP SOM01.2 B
88-75-5	2-Nitrophenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
91-94-1	3,3'-Dichlorobenzidine	220	U, R, QS-4	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
99-09-2	3-Nitroaniline	420	U	ug/kg dry	420	2/23/11	2/25/11	CLP SOM01.2 B
101-55-3	4-Bromophenyl phenyl ether	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
59-50-7	4-Chloro-3-methylphenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
106-47-8	4-Chloroaniline	220	U, R, QS-4	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
7005-72-3	4-Chlorophenyl phenyl ether	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
100-01-6	4-Nitroaniline	420	U	ug/kg dry	420	2/23/11	2/25/11	CLP SOM01.2 B
100-02-7	4-Nitrophenol	420	U, J, CLP16	ug/kg dry	420	2/23/11	2/25/11	CLP SOM01.2 B
83-32-9	Acenaphthene	17	U	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
208-96-8	Acenaphthylene	17	U	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
98-86-2	Acetophenone	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KM1501A2SF

Lab ID: C110904-09

MD No:

Station ID: KM1501

Matrix: Surface Soil

D No: 69X3 LIBRTY

Date Collected: 2/15/11 8:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
120-12-7	Anthracene	17	U	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
1912-24-9	Atrazine	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
100-52-7	Benzaldehyde	220	U, J, CLP16	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
56-55-3	Benzo(a)anthracene	22		ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
50-32-8	Benzo(a)pyrene	27		ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
205-99-2	Benzo(b)fluoranthene	72	J, QC-2	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
191-24-2	Benzo(g,h,i)perylene	18	U, B-4	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
207-08-9	Benzo(k)fluoranthene	61		ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
85-68-7	Benzyl butyl phthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
111-91-1	Bis(2-chloroethoxy)methane	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
111-44-4	bis(2-Chloroethyl) Ether	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
39638-32-9	Bis(2-chloroisopropyl) ether	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
117-81-7	Bis(2-ethylhexyl) phthalate	340		ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
105-60-2	Caprolactam	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
86-74-8	Carbazole	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
218-01-9	Chrysene	41		ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
53-70-3	Dibenzo(a,h)anthracene	8.3	J, CLP01	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
132-64-9	Dibenzofuran	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
84-66-2	Diethyl phthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
131-11-3	Dimethyl phthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
84-74-2	Di-n-butylphthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
117-84-0	Di-n-octylphthalate	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
206-44-0	Fluoranthene	59		ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
86-73-7	Fluorene	17	U	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
118-74-1	Hexachlorobenzene (HCB)	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
87-68-3	Hexachlorobutadiene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
77-47-4	Hexachlorocyclopentadiene (HCCP)	220	U, R, QS-4	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
67-72-1	Hexachloroethane	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
193-39-5	Indeno (1,2,3-cd) pyrene	45	J, QC-2	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
78-59-1	Isophorone	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
91-20-3	Naphthalene	17	U	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS



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Contract Lab Case: 41017

Sample ID: KM1501A2SF

Lab ID: C110904-09

MD No:

Station ID: KM1501

Matrix: Surface Soil

D No: 69X3 LIBRTY

Date Collected: 2/15/11 8:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
98-95-3	Nitrobenzene	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
621-64-7	n-Nitroso di-n-Propylamine	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
87-86-5	Pentachlorophenol	34	U	ug/kg dry	34	2/23/11	3/03/11	CLP SOM01.2 BS
85-01-8	Phenanthrene	7.8	J, CLP01	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
108-95-2	Phenol	220	U	ug/kg dry	220	2/23/11	2/25/11	CLP SOM01.2 B
129-00-0	Pyrene	48	J, QC-1	ug/kg dry	17	2/23/11	3/03/11	CLP SOM01.2 BS
Tentatively Identified Compounds:								
474-62-4	Campesterol	500	NJ, CLP15	ug/kg dry	0	2/23/11	2/25/11	CLP SOM01.2 B
57-10-3	n-Hexadecanoic acid	300	NJ, CLP15	ug/kg dry	0	2/23/11	2/25/11	CLP SOM01.2 B
R4-6500	Petroleum Product:		N, CLP15		0	2/23/11	2/25/11	CLP SOM01.2 B
R4-6501	Unidentified Compound(s)	1000	J, CLP15	ug/kg dry	0	2/23/11	2/25/11	CLP SOM01.2 B



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 4 Science and Ecosystem Support Division  
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMPPI5F

Lab ID: C110904-10

MD No:

Station ID: KMPPI1

Matrix: Surface Soil

D No: 69P5 LIBRTY

Date Collected: 2/15/11 17:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	10		%		2/23/11	2/25/11	CLP BNA
1319-77-3	(3-and/or 4-)Methylphenol	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
92-52-4	1,1-Biphenyl	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
95-94-3	1,2,4,5-Tetrachlorobenzene	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
58-90-2	2,3,4,6-Tetrachlorophenol	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
95-95-4	2,4,5-Trichlorophenol	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
88-06-2	2,4,6-Trichlorophenol	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
120-83-2	2,4-Dichlorophenol	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
105-67-9	2,4-Dimethylphenol	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
51-28-5	2,4-Dinitrophenol	370	U, J, CLP16	ug/kg dry	370	2/23/11	2/25/11	CLP SOM01.2 B
121-14-2	2,4-Dinitrotoluene	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
606-20-2	2,6-Dinitrotoluene	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
91-58-7	2-Chloronaphthalene	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
95-57-8	2-Chlorophenol	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
534-52-1	2-Methyl-4,6-dinitrophenol	370	U	ug/kg dry	370	2/23/11	2/25/11	CLP SOM01.2 B
91-57-6	2-Methylnaphthalene	2.7	J, CLP01	ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
95-48-7	2-Methylphenol	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
88-74-4	2-Nitroaniline	370	U	ug/kg dry	370	2/23/11	2/25/11	CLP SOM01.2 B
88-75-5	2-Nitrophenol	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
91-94-1	3,3'-Dichlorobenzidine	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
99-09-2	3-Nitroaniline	370	U	ug/kg dry	370	2/23/11	2/25/11	CLP SOM01.2 B
101-55-3	4-Bromophenyl phenyl ether	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
59-50-7	4-Chloro-3-methylphenol	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
106-47-8	4-Chloroaniline	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
7005-72-3	4-Chlorophenyl phenyl ether	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
100-01-6	4-Nitroaniline	370	U	ug/kg dry	370	2/23/11	2/25/11	CLP SOM01.2 B
100-02-7	4-Nitrophenol	370	U, J, CLP16	ug/kg dry	370	2/23/11	2/25/11	CLP SOM01.2 B
83-32-9	Acenaphthene	3.7		ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
208-96-8	Acenaphthylene	2.7	J, CLP01	ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
98-86-2	Acetophenone	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B





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Region 4 Science and Ecosystem Support Division  
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMPPI5F

Lab ID: C110904-10

MD No:

Station ID: KMPPI1

Matrix: Surface Soil

D No: 69P5 LIBRTY

Date Collected: 2/15/11 17:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
120-12-7	Anthracene	3.7	U	ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
1912-24-9	Atrazine	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
100-52-7	Benzaldehyde	190	U, J, CLP16	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
56-55-3	Benzo(a)anthracene	8.9		ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
50-32-8	Benzo(a)pyrene	11	U, B-4	ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
205-99-2	Benzo(b)fluoranthene	19		ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
191-24-2	Benzo(g,h,i)perylene	8.2	U, J, B-4, QC-1	ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
207-08-9	Benzo(k)fluoranthene	14		ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
85-68-7	Benzyl butyl phthalate	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
111-91-1	Bis(2-chloroethoxy)methane	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
111-44-4	bis(2-Chloroethyl) Ether	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
39638-32-9	Bis(2-chloroisopropyl) ether	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
117-81-7	Bis(2-ethylhexyl) phthalate	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
105-60-2	Caprolactam	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
86-74-8	Carbazole	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
218-01-9	Chrysene	11		ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
53-70-3	Dibenzo(a,h)anthracene	5.1		ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
132-64-9	Dibenzofuran	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
84-66-2	Diethyl phthalate	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
131-11-3	Dimethyl phthalate	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
84-74-2	Di-n-butylphthalate	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
117-84-0	Di-n-octylphthalate	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
206-44-0	Fluoranthene	11	U, B-4	ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
86-73-7	Fluorene	3.7	J, CLP01	ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
118-74-1	Hexachlorobenzene (HCB)	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
87-68-3	Hexachlorobutadiene	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
77-47-4	Hexachlorocyclopentadiene (HCCP)	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
67-72-1	Hexachloroethane	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
193-39-5	Indeno (1,2,3-cd) pyrene	12		ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
78-59-1	Isophorone	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
91-20-3	Naphthalene	2.5	J, CLP01	ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS





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Region 4 Science and Ecosystem Support Division  
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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMPP1SF

Lab ID: C110904-10

MD No:

Station ID: KMPP1

Matrix: Surface Soil

D No: 69P5 LIBRTY

Date Collected: 2/15/11 17:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
98-95-3	Nitrobenzene	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
621-64-7	n-Nitroso di-n-Propylamine	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
87-86-5	Pentachlorophenol	13		ug/kg dry	7.5	2/23/11	3/03/11	CLP SOM01.2 BS
85-01-8	Phenanthrene	4.9		ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
108-95-2	Phenol	190	U	ug/kg dry	190	2/23/11	2/25/11	CLP SOM01.2 B
129-00-0	Pyrene	9.1	U, J, B-4, QC-1	ug/kg dry	3.7	2/23/11	3/03/11	CLP SOM01.2 BS
Tentatively Identified Compounds:								
R4-6500	Petroleum Product:		N, CLP15		0	2/23/11	2/25/11	CLP SOM01.2 B



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMWP01

Lab ID: C110904-11

MD No:

Station ID: KMWP01

Matrix: Surface Soil

D No: 69X4 LIBRTY

Date Collected: 2/16/11 9:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	7.1		%		2/28/11	3/01/11	CLP BNA
1319-77-3	(3-and/or 4-)Methylphenol	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
92-52-4	1,1-Biphenyl	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
95-94-3	1,2,4,5-Tetrachlorobenzene	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
58-90-2	2,3,4,6-Tetrachlorophenol	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
95-95-4	2,4,5-Trichlorophenol	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
88-06-2	2,4,6-Trichlorophenol	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
120-83-2	2,4-Dichlorophenol	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
105-67-9	2,4-Dimethylphenol	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
51-28-5	2,4-Dinitrophenol	11000	U, J, CLP16	ug/kg dry	11000	2/28/11	3/01/11	CLP SOM01.2 B
121-14-2	2,4-Dinitrotoluene	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
606-20-2	2,6-Dinitrotoluene	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
91-58-7	2-Chloronaphthalene	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
95-57-8	2-Chlorophenol	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
534-52-1	2-Methyl-4,6-dinitrophenol	11000	U	ug/kg dry	11000	2/28/11	3/01/11	CLP SOM01.2 B
91-57-6	2-Methylnaphthalene	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
95-48-7	2-Methylphenol	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
88-74-4	2-Nitroaniline	11000	U	ug/kg dry	11000	2/28/11	3/01/11	CLP SOM01.2 B
88-75-5	2-Nitrophenol	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
91-94-1	3,3'-Dichlorobenzidine	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
99-09-2	3-Nitroaniline	11000	U	ug/kg dry	11000	2/28/11	3/01/11	CLP SOM01.2 B
101-55-3	4-Bromophenyl phenyl ether	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
59-50-7	4-Chloro-3-methylphenol	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
106-47-8	4-Chloroaniline	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
7005-72-3	4-Chlorophenyl phenyl ether	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
100-01-6	4-Nitroaniline	11000	U	ug/kg dry	11000	2/28/11	3/01/11	CLP SOM01.2 B
100-02-7	4-Nitrophenol	11000	U, J, CLP16	ug/kg dry	11000	2/28/11	3/01/11	CLP SOM01.2 B
83-32-9	Acenaphthene	27000		ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
208-96-8	Acenaphthylene	1500	J, CLP01	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
98-86-2	Acetophenone	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMWP01

Lab ID: C110904-11

MD No:

Station ID: KMWP01

Matrix: Surface Soil

D No: 69X4 LIBRTY

Date Collected: 2/16/11 9:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
120-12-7	Anthracene	28000		ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
1912-24-9	Atrazine	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
100-52-7	Benzaldehyde	5400	U, J, CLP16	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
56-55-3	Benzo(a)anthracene	110000		ug/kg dry	54000	2/28/11	3/01/11	CLP SOM01.2 B
50-32-8	Benzo(a)pyrene	55000		ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
205-99-2	Benzo(b)fluoranthene	95000		ug/kg dry	54000	2/28/11	3/01/11	CLP SOM01.2 B
191-24-2	Benzo(g,h,i)perylene	23000		ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
207-08-9	Benzo(k)fluoranthene	70000		ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
85-68-7	Benzyl butyl phthalate	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
111-91-1	Bis(2-chloroethoxy)methane	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
111-44-4	bis(2-Chloroethyl) Ether	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
39638-32-9	Bis(2-chloroisopropyl) ether	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
117-81-7	Bis(2-ethylhexyl) phthalate	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
105-60-2	Caprolactam	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
86-74-8	Carbazole	7500		ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
218-01-9	Chrysene	100000		ug/kg dry	54000	2/28/11	3/01/11	CLP SOM01.2 B
53-70-3	Dibenzo(a,h)anthracene	8400		ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
132-64-9	Dibenzofuran	19000		ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
84-66-2	Diethyl phthalate	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
131-11-3	Dimethyl phthalate	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
84-74-2	Di-n-butylphthalate	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
117-84-0	Di-n-octylphthalate	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
206-44-0	Fluoranthene	510000		ug/kg dry	54000	2/28/11	3/01/11	CLP SOM01.2 B
86-73-7	Fluorene	32000		ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
118-74-1	Hexachlorobenzene (HCB)	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
87-68-3	Hexachlorobutadiene	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
77-47-4	Hexachlorocyclopentadiene (HCCP)	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
67-72-1	Hexachloroethane	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
193-39-5	Indeno (1,2,3-cd) pyrene	31000		ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
78-59-1	Isophorone	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
91-20-3	Naphthalene	1900	J, CLP01	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMWP01

Lab ID: C110904-11

MD No:

Station ID: KMWP01

Matrix: Surface Soil

D No: 69X4 LIBRTY

Date Collected: 2/16/11 9:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
98-95-3	Nitrobenzene	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
621-64-7	n-Nitroso di-n-Propylamine	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
87-86-5	Pentachlorophenol	11000	U, J, CLP16	ug/kg dry	11000	2/28/11	3/01/11	CLP SOM01.2 B
85-01-8	Phenanthrene	190000		ug/kg dry	54000	2/28/11	3/01/11	CLP SOM01.2 B
108-95-2	Phenol	5400	U	ug/kg dry	5400	2/28/11	3/01/11	CLP SOM01.2 B
129-00-0	Pyrene	340000		ug/kg dry	54000	2/28/11	3/01/11	CLP SOM01.2 B
Tentatively Identified Compounds:								
479-79-8	11H-Benzo[a]fluoren-11-one	100000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
243-17-4	11H-Benzo[b]fluorene	20000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
203-64-5	4H-Cyclopenta[def]phenanthrene	40000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
781-43-1	9,10-Dimethylanthracene	10000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
50861-05-7	9H-Cyclopenta[a]pyrene	30000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
486-25-9	9H-Fluoren-9-one	20000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
227-86-1	Anthra(1,2-b)thiophene	20000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
2541-69-7	Benz[a]anthracene, 7-methyl-	30000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
225-51-4	Benz[c]acridine	20000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
239-30-5	Benzo[b]naphtho[1,2-d]furan	30000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
239-35-0	Benzo[b]naphtho[2,1-d]thiophene	40000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
192-97-2	Benzo[e]pyrene	30000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
5737-13-3	Cyclopenta(def)phenanthrenone	30000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
243-24-3	Indeno[2,1-b]chromene,	20000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
268-77-9	Naphtho[2,3-b]thiophene	10000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
2531-84-2	Phenanthrene, 2-methyl-	20000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
2381-21-7	Pyrene, 1-methyl-	20000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
3442-78-2	Pyrene, 2-methyl-	30000	NJ, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B
R4-6501	Unidentified Compound(s)	400000	J, CLP15	ug/kg dry	0	2/28/11	3/01/11	CLP SOM01.2 B



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMWP02

Lab ID: C110904-12

MD No:

Station ID: KMWP01

Matrix: Surface Soil

D No: 69X5 LIBRTY

Date Collected: 2/17/11 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	9.0		%		2/23/11	2/26/11	CLP BNA
1319-77-3	(3-and/or 4-)Methylphenol	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
92-52-4	1,1-Biphenyl	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
95-94-3	1,2,4,5-Tetrachlorobenzene	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
58-90-2	2,3,4,6-Tetrachlorophenol	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
95-95-4	2,4,5-Trichlorophenol	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
88-06-2	2,4,6-Trichlorophenol	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
120-83-2	2,4-Dichlorophenol	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
105-67-9	2,4-Dimethylphenol	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
51-28-5	2,4-Dinitrophenol	360	U, J, CLP16	ug/kg dry	360	2/23/11	2/26/11	CLP SOM01.2 B
121-14-2	2,4-Dinitrotoluene	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
606-20-2	2,6-Dinitrotoluene	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
91-58-7	2-Chloronaphthalene	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
95-57-8	2-Chlorophenol	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
534-52-1	2-Methyl-4,6-dinitrophenol	360	U	ug/kg dry	360	2/23/11	2/26/11	CLP SOM01.2 B
91-57-6	2-Methylnaphthalene	18	U	ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
95-48-7	2-Methylphenol	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
88-74-4	2-Nitroaniline	360	U	ug/kg dry	360	2/23/11	2/26/11	CLP SOM01.2 B
88-75-5	2-Nitrophenol	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
91-94-1	3,3'-Dichlorobenzidine	190	U, J, QS-4	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
99-09-2	3-Nitroaniline	360	U	ug/kg dry	360	2/23/11	2/26/11	CLP SOM01.2 B
101-55-3	4-Bromophenyl phenyl ether	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
59-50-7	4-Chloro-3-methylphenol	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
106-47-8	4-Chloroaniline	190	U, J, QS-4	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
7005-72-3	4-Chlorophenyl phenyl ether	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
100-01-6	4-Nitroaniline	360	U	ug/kg dry	360	2/23/11	2/26/11	CLP SOM01.2 B
100-02-7	4-Nitrophenol	360	U, J, CLP16	ug/kg dry	360	2/23/11	2/26/11	CLP SOM01.2 B
83-32-9	Acenaphthene	18	U	ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
208-96-8	Acenaphthylene	18	U	ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
98-86-2	Acetophenone	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMWP02

Lab ID: C110904-12

MD No:

Station ID: KMWP01

Matrix: Surface Soil

D No: 69X5 LIBRTY

Date Collected: 2/17/11 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
120-12-7	Anthracene	18	U	ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
1912-24-9	Atrazine	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
100-52-7	Benzaldehyde	190	U, J, CLP16	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
56-55-3	Benzo(a)anthracene	56		ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
50-32-8	Benzo(a)pyrene	43		ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
205-99-2	Benzo(b)fluoranthene	78	J, QC-2	ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
191-24-2	Benzo(g,h,i)perylene	24	U, B-4	ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
207-08-9	Benzo(k)fluoranthene	73		ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
85-68-7	Benzyl butyl phthalate	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
111-91-1	Bis(2-chloroethoxy)methane	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
111-44-4	bis(2-Chloroethyl) Ether	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
39638-32-9	Bis(2-chloroisopropyl) ether	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
117-81-7	Bis(2-ethylhexyl) phthalate	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
105-60-2	Caprolactam	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
86-74-8	Carbazole	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
218-01-9	Chrysene	68		ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
53-70-3	Dibenzo(a,h)anthracene	13	J, CLP01	ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
132-64-9	Dibenzofuran	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
84-66-2	Diethyl phthalate	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
131-11-3	Dimethyl phthalate	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
84-74-2	Di-n-butylphthalate	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
117-84-0	Di-n-octylphthalate	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
206-44-0	Fluoranthene	140		ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
86-73-7	Fluorene	18	U	ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
118-74-1	Hexachlorobenzene (HCB)	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
87-68-3	Hexachlorobutadiene	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
77-47-4	Hexachlorocyclopentadiene (HCCP)	190	U, J, QS-4	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
67-72-1	Hexachloroethane	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
193-39-5	Indeno (1,2,3-cd) pyrene	63	J, QC-2	ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
78-59-1	Isophorone	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
91-20-3	Naphthalene	18	U	ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS



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## Semi Volatile Organics

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMWP02

Lab ID: C110904-12

MD No:

Station ID: KMWP01

Matrix: Surface Soil

D No: 69X5 LIBRTY

Date Collected: 2/17/11 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
98-95-3	Nitrobenzene	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
621-64-7	n-Nitroso di-n-Propylamine	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
87-86-5	Pentachlorophenol	37	U	ug/kg dry	37	2/23/11	3/03/11	CLP SOM01.2 BS
85-01-8	Phenanthrene	42		ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
108-95-2	Phenol	190	U	ug/kg dry	190	2/23/11	2/26/11	CLP SOM01.2 B
129-00-0	Pyrene	84	J, QC-1	ug/kg dry	18	2/23/11	3/03/11	CLP SOM01.2 BS
Tentatively Identified Compounds:								
R4-6500	Petroleum Product:		N, CLP15		0	2/23/11	2/26/11	CLP SOM01.2 B
R4-6501	Unidentified Compound(s)	500	J, CLP15	ug/kg dry	0	2/23/11	2/26/11	CLP SOM01.2 B





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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

**March 25, 2011**

**4SESD-MTSB**

**MEMORANDUM**

**SUBJECT:** FINAL Analytical Report  
Project: 11-0207, Kerr-McGee Chemical (Columbus) Site  
Superfund Emergency Response and Removal

**FROM:** Jeffrey Hendel  
Quality Assurance Section Chemist

**THRU:** Marilyn Maycock, Chief  
Quality Assurance Section

**TO:** Timothy Simpson

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the associated contract Statement Of Work (SOW). In general, project data quality objectives have not been used to evaluate these data prior to release by the Quality Assurance Section. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report.

Analyses Included in this report:

Method Used:

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**Dioxin (DIO)**

Dioxin

Contract SOW





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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

**Report Narrative** for Work Order C110907, Project: 11-0207  
Site Name: Kerr-McGee Chemical Site, Columbus, MS  
ELEMENT Sample Nos. C110907-01 through C110907-63

Dioxin Analysis: Cape Fear Analytical, Wilmington, NC

The ESAT Work Team reviewed data for the project cited above consisting of sixty-one (61) soil samples analyzed per statement of work DLM02.2 for dioxins and furans reported in four Sample Delivery Groups (SDGs). The samples were collected between 02/14/11 and 02/17/11, and received by the laboratory between 02/17/11 and 02/18/11. The final data package was received by the USEPA Quality Assurance Section, Region 4 SESD/MTSB on 03/10/11. A Stage 4 validation consisting of a manual review (S4VM) was performed on the dioxin samples submitted for this case. The data package presents acceptable technical performance with qualifications.

Certain results among these data are reported as not detected at an elevated detection limit. In general, this may occur when method blank contamination is evident, or when one or more of the qualitative identification criteria have not been met. In the event of method blank contamination, detection limits may be raised as much as five times the level of contamination in order to discount false positive results. If qualitative identification criteria are not met for an analyte, an estimated maximum possible concentration (EMPC) value is reported, and is qualified as non-detect ("U" flag).

The method reporting limit (MRL), as defined elsewhere in this document, is used in dioxin/furan analyses to report the analyte concentration which corresponds to the lowest quantitative point on the calibration curve. Any positive results less than this value are qualified as estimates ("J" flag). The value reported for a 2,3,7,8-substituted PCDD/PCDF analyte that is not detected is either an estimated detection limit (EDL), which is calculated from the instrument signal vs. system noise, or an EMPC value as described above, qualified with a "U" flag.

Toxic equivalent quantities (TEQ) have been reported for these data which have been derived from the most recently available set of toxic equivalent factors (TEF). For mammalian TEQs, these factors were published in 2005 by the World Health Organization (WHO). In the case of the TEQs for birds and fish, the factors were published in 1998, also by WHO.

Toxic equivalent values for non-detect results are determined using the EDL or the EMPC as a proxy value. Thus a sample with non-detect results for all PCDD/PCDF congeners will still have a positive TEQ value. The TEQ is qualified as estimated ("J") when the sum of the contributions from the various PCDD/PCDF analytes that are themselves reported as either estimated ("J") or non-detect ("U") exceeds 10% of the TEQ total. If no positive results are present for any of the 2,3,7,8 congeners, the TEQ is reported as not detected with an estimated detection limit ("UJ").

Pertinent data quality factors are discussed below.



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Sample C110907-07 was re-extracted outside of the contractual holding time due to low recoveries of labeled standards. The technical holding time was not affected and data qualification was not required.

The laboratory scored within limits for all congeners in the performance evaluation sample (PES) spike. The congeners 2,3,7,8-TCDF (0.308 ng/Kg) and OCDD (0.666 ng/Kg) were reported as contaminants at less than the contract required quantitation limit (CRQL) in the PES blank and these two congeners were treated as method blank contaminants during data qualification. Also, the laboratory did not analyze any of the associated method blanks on the confirming DB-225 column. The reported results for OCDD were not affected, however, all results for 2,3,7,8-TCDF which were below 5X the PES blank (1.54 ng/Kg) from either the DB-5 or DB-225 column were reported as not detected. Further, the reporting limits for 2,3,7,8-TCDF were elevated and reported as not detected (U, B-4) in the following samples: C110907-01, 23, 35, 36, 37, 38, and 41.

Poor chromatography (*e.g.* split peaks, precursors, or excessive tailing) or lock mass drift was observed for the HxCDD and/or HxCDF congener(s) in the following samples: C110907-01, 02, 05, 06, 07, 08, 10, 13, 14, 15, 23, 24, 29, 31, 36, 37, 38, 39, 40, 41, 43, 47, 55, and 59. The associated congeners were "J" qualified (CLP33) in the above samples.

The recoveries of the labeled standards (QI-1) for the undiluted analysis of sample C110907-59 were used to qualify the 50X dilution as follows:

The non-detected result for the 2,3,7,8-TCDF congener was "R" qualified since the labeled recovery was less than 10 %;

The non-detected result for the 2,3,7,8-TCDD congener was "J" qualified since labeled recovery was below QC limits;

The positive results for all the HxCDD congeners, the 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, and 2,3,4,6,7,8-HxCDF congeners, and the 1,2,3,4,7,8,9-HpCDF congener were all "J" qualified since labeled recoveries were above QC limits.

The results of the 50X dilution were used for Element entry and not corrected for the labeled recoveries reported from the undiluted analysis. The results from the undiluted analysis were not used due to poor chromatography.

The results for the congener OCDD exceeded the calibration range and were "J" qualified (CLP02) in samples C110907-01, 02, 03, 04, 06, 07, 08, 10, 12, 13, 14, 15, 19, 21, 22, 23, 24, 25, 29, 31, 33, 34, 35, 36, 37, 39, 40, 41, 42, 47, 51, 59, and 61. It should be noted that the SOW does not require dilutions for the OCDD congener.



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The relative retention times of some congeners and/or labeled standards were outside of the limits specified in the Statement of Work, Exhibit D, Table 2. Based on the absolute retention times and daily adjustments of descriptor switching times, data qualification was deemed not necessary.

All data qualification factors are explained by the Region 4 - specific qualifier definitions which are included elsewhere in this report. Further details are provided in the complete data review report, which is on file in the Region 4 SESD Records Center.

cc: Nardina Turner



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

**SAMPLES INCLUDED IN THIS REPORT**

**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**

**Contract Lab Case: 41017**

Sample ID	Laboratory ID	MD#	D#	Matrix	Date Collected
12131A2SF	C110907-01		69P6	Surface Soil	2/14/11 15:25
12323A2SF	C110907-02		69P7	Surface Soil	2/15/11 10:30
12324A2SF	C110907-03		69P8	Surface Soil	2/15/11 10:55
12462A2SF	C110907-04		69P9	Surface Soil	2/15/11 14:37
12462B2SF	C110907-05		69Q0	Surface Soil	2/15/11 14:58
12462C2SF	C110907-06		69Q1	Surface Soil	2/15/11 15:30
12462C2SFX	C110907-07		69Q2	Surface Soil	2/15/11 15:30
12462GA1SF	C110907-08		69Q3	Surface Soil	2/15/11 14:20
12462GB1SF	C110907-09		69Q4	Surface Soil	2/15/11 14:35
12463GB2SF	C110907-10		69Q5	Surface Soil	2/15/11 15:25
12463GC1SF	C110907-11		69Q7	Surface Soil	2/15/11 14:50
12462GC2SF	C110907-12		69Q6	Surface Soil	2/15/11 15:05
12470A2SF	C110907-13		69Q8	Surface Soil	2/15/11 11:55
12484A2SF	C110907-14		69Q9	Surface Soil	2/14/11 16:10
12486A2SF	C110907-15		69R0	Surface Soil	2/14/11 16:50
12490A2SF	C110907-16		69R1	Surface Soil	2/15/11 09:05
12490A2SFX	C110907-17		69R2	Surface Soil	2/15/11 09:10
12491A2SF	C110907-18		69R3	Surface Soil	2/15/11 09:50
12520A2SF	C110907-19		69R4	Surface Soil	2/15/11 10:40
12522A2SF	C110907-20		69R5	Surface Soil	2/15/11 10:15
12621A2SF	C110907-21		69R6	Surface Soil	2/15/11 09:45
12622A2SF	C110907-22		69R7	Surface Soil	2/15/11 09:20
12623A2SF	C110907-23		69R8	Surface Soil	2/15/11 09:00
12624B2SF	C110907-24		69S0	Surface Soil	2/14/11 15:30
12629A2SF	C110907-25		69S1	Surface Soil	2/14/11 16:45
12630A2SF	C110907-26		69S2	Surface Soil	2/14/11 16:30
12633A2SF	C110907-27		69S3	Surface Soil	2/15/11 08:22
12634A2SF	C110907-28		69S4	Surface Soil	2/15/11 08:40
13723A2SF	C110907-29		69S5	Surface Soil	2/14/11 16:05
13743A2SF	C110907-30		69S6	Surface Soil	2/15/11 16:25
13744A2SF	C110907-31		69S7	Surface Soil	2/14/11 15:50
13744B2SB12	C110907-32		69S8	Subsurface Soil	2/14/11 15:30
13744B2SF	C110907-33		69S9	Surface Soil	2/14/11 15:10
13746A2SF	C110907-34		69T0	Surface Soil	2/15/11 11:05



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13750A2SF	C110907-35	69T1	Surface Soil	2/15/11 10:55
13753A2SF	C110907-36	69T2	Surface Soil	2/15/11 10:40
13755A2SF	C110907-37	69T3	Surface Soil	2/15/11 10:00
13756A2SF	C110907-38	69T4	Surface Soil	2/15/11 09:50
13758A2SF	C110907-39	69T5	Surface Soil	2/15/11 09:30
13758A2SFX	C110907-40	69T6	Surface Soil	2/15/11 09:32
13759A2SF	C110907-41	69T7	Surface Soil	2/15/11 09:15
13761A2SF	C110907-42	69T8	Surface Soil	2/15/11 09:05
13762A2SF	C110907-43	69T9	Surface Soil	2/15/11 08:50
13764A2SF	C110907-44	69W0	Surface Soil	2/15/11 15:50
13764A2SFX	C110907-45	69W1	Surface Soil	2/15/11 15:50
13766A2SF	C110907-46	69W2	Surface Soil	2/15/11 08:30
13767A2SF	C110907-47	69W3	Surface Soil	2/14/11 14:58
13774A2SF	C110907-48	69W4	Surface Soil	2/15/11 11:20
13775A2SB12	C110907-49	69W5	Subsurface Soil	2/15/11 12:50
13775A2SF	C110907-50	69W6	Surface Soil	2/15/11 12:30
13785A2SF	C110907-51	69W7	Surface Soil	2/15/11 15:10
13889A2SF	C110907-52	69W8	Surface Soil	2/15/11 14:50
13890A2SF	C110907-53	69W9	Surface Soil	2/15/11 14:20
13894A2SF	C110907-54	69X0	Surface Soil	2/15/11 13:50
13900A2SF	C110907-55	69X1	Surface Soil	2/15/11 13:25
29844A2SF	C110907-56	69X2	Surface Soil	2/15/11 16:52
KM1501A2SF	C110907-57	69X3	Surface Soil	2/15/11 08:30
KMPP1SF	C110907-58	69P5	Surface Soil	2/15/11 17:00
KMWP01	C110907-59	69X4	Surface Soil	2/16/11 09:00
KMWP02	C110907-60	69X5	Surface Soil	2/17/11 12:30
12624A2SB12	C110907-61	69R9	Subsurface Soil	2/14/11 16:04



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## DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
B-4	Level in blank impacts MRLs.
CLP01	Concentration reported is less than the lowest standard on calibration curve
CLP02	Concentration reported is greater than the highest standard on calibration curve
CLP10	2,3,7,8-TCDF confirmed by second column.
CLP18	Estimated Maximum Possible Concentration (EMPC) Reported
CLP24	Result has not been confirmed by second column analysis.
CLP33	Poor Chromatography - Split Peaks and/or Poor Peak Shape Present
D-5	Estimated quantitation for one or more individual constituents comprising >10% of the total.
J	The identification of the analyte is acceptable; the reported value is an estimate.
Q-3	Instrument not calibrated for all constituents of the total concentration result.
QI-1	Internal standard was outside of method control limits.
R	The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable.

## ACRONYMS AND ABBREVIATIONS

CAS	Chemical Abstracts Service  Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System ( <a href="http://www.epa.gov/srs">www.epa.gov/srs</a> ), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.
MDL	Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.
MRL	Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.
TIC	Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.





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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12131A2SF

Lab ID: C110907-01

MD No:

Station ID: 12131

Matrix: Surface Soil

D No: 69P6 CAPE

Date Collected: 2/14/11 15:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	19		%		2/21/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	720		ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	140		ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	8.3		ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	6.4	J, CLP33	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	15		ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	17	J, CLP33	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	5.4		ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	12	J, CLP33	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.0	J, CLP01	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.7	J, CLP01	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.98	J, CLP01	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	7.6	J, CLP33	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	4.0	J, CLP01	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.30	J, CLP01	ng/kg dry	1.0	2/21/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.5	U, B-4	ng/kg dry	1.0	2/21/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1800	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	450	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	180	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	180	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	8700	J, CLP02	ng/kg dry	10	2/21/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	370		ng/kg dry	10	2/21/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	21	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	45	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	17	J, D-5	ng/kg dry	17	2/21/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	15	J, D-5	ng/kg dry	15	2/21/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	23	J, D-5	ng/kg dry	23	2/21/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	3.8	J, Q-3	ng/kg dry	1.0	2/21/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12131A2SF

Lab ID: C110907-01

MD No:

Station ID: 12131

Matrix: Surface Soil

D No: 69P6 CAPE

Date Collected: 2/14/11 15:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	12	J, Q-3	ng/kg dry	1.0	2/21/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12323A2SF

Lab ID: C110907-02

MD No:

Station ID: 12323

Matrix: Surface Soil

D No: 69P7 CAPE

Date Collected: 2/15/11 10:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	22		%		2/21/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1200		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	210		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	14		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	9.2	J, CLP33	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	18		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	28	J, CLP33	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	7.1		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	17	J, CLP33	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.9	J, CLP01	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	3.0	J, CLP01	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	2.1	J, CLP01	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	11	J, CLP33	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	4.8	J, CLP01	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.46	J, CLP01	ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	2.0	CLP10	ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	3200	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	650	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	310	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	270	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	12000	J, CLP02	ng/kg dry	9.9	2/21/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	550		ng/kg dry	9.9	2/21/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	34	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	66	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	22	J, D-5	ng/kg dry	22	2/21/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	20	J, D-5	ng/kg dry	20	2/21/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	33	J, D-5	ng/kg dry	33	2/21/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	13	J, Q-3	ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12323A2SF

Lab ID: C110907-02

MD No:

Station ID: 12323

Matrix: Surface Soil

D No: 69P7 CAPE

Date Collected: 2/15/11 10:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	22	J, Q-3	ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12324A2SF

Lab ID: C110907-03

MD No:

Station ID: 12324

Matrix: Surface Soil

D No: 69P8 CAPE

Date Collected: 2/15/11 10:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/21/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	2900		ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	420		ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	34		ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	17	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	53		ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	63		ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	22	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	29		ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	16	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	4.6	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	5.3	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	22	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	14	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	1.4	U	ng/kg dry	5.0	2/21/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	3.3	J, CLP01, CLP24	ng/kg dry	5.0	2/21/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	2900	J, Q-3	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1500	J, Q-3	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	630	J, Q-3	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	760	J, Q-3	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	37000	J, CLP02	ng/kg dry	50	2/21/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	960		ng/kg dry	50	2/21/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	53	J, Q-3	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	120	J, Q-3	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	50	J, D-5	ng/kg dry	50	2/21/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	45	J, D-5	ng/kg dry	45	2/21/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	78	J, D-5	ng/kg dry	78	2/21/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	6.4	J, Q-3	ng/kg dry	5.0	2/21/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12324A2SF

Lab ID: C110907-03

MD No:

Station ID: 12324

Matrix: Surface Soil

D No: 69P8 CAPE

Date Collected: 2/15/11 10:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	29	J, Q-3	ng/kg dry	5.0	2/21/11	3/04/11	CL DLM02.0





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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462A2SF

Lab ID: C110907-04

MD No:

Station ID: 12462A

Matrix: Surface Soil

D No: 69P9 CAPE

Date Collected: 2/15/11 14:37

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	29		%		2/21/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1800		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	500		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	20		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	22		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	39		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	190		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	17		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	83		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	6.2	J, CLP01	ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	11		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	3.6	J, CLP01	ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	20		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	7.4	J, CLP01	ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	1.5	J, CLP01	ng/kg dry	2.0	2/21/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.1	U	ng/kg dry	2.0	2/21/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1800	J, Q-3	ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1200	J, Q-3	ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	1200	J, Q-3	ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	500	J, Q-3	ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	16000	J, CLP02	ng/kg dry	20	2/21/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	790		ng/kg dry	20	2/21/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	140	J, Q-3	ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	110	J, Q-3	ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	50	J, D-5	ng/kg dry	50	2/21/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	48	J, D-5	ng/kg dry	48	2/21/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	81	J, D-5	ng/kg dry	81	2/21/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	17	J, Q-3	ng/kg dry	2.0	2/21/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462A2SF

Lab ID: C110907-04

MD No:

Station ID: 12462A

Matrix: Surface Soil

D No: 69P9 CAPE

Date Collected: 2/15/11 14:37

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	12	J, Q-3	ng/kg dry	2.0	2/21/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462B2SF

Lab ID: C110907-05

MD No:

Station ID: 12462B

Matrix: Surface Soil

D No: 69Q0 CAPE

Date Collected: 2/15/11 14:58

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	26		%		2/21/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1600		ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	380		ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	22	J, CLP01	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	12	U, J, CLP18, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	34	J, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	120	J, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	11	J, CLP01, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	53	J, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	4.4	J, CLP01, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	7.2	J, CLP01	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	2.1	J, CLP01	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	16	J, CLP01, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	6.3	J, CLP01	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.70	U	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.0	U	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	5100	J, Q-3	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1000	J, Q-3	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	770	J, Q-3	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	480	J, Q-3	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	17000		ng/kg dry	50	2/21/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	890		ng/kg dry	50	2/21/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	69	J, Q-3	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	65	J, Q-3	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	36	J, D-5	ng/kg dry	36	2/21/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	33	J, D-5	ng/kg dry	33	2/21/11	3/02/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462B2SF

Lab ID: C110907-05

MD No:

Station ID: 12462B

Matrix: Surface Soil

D No: 69Q0 CAPE

Date Collected: 2/15/11 14:58

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	60	J, D-5	ng/kg dry	60	2/21/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	3.3	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	6.6	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462C2SF

Lab ID: C110907-06

MD No:

Station ID: 12462C

Matrix: Surface Soil

D No: 69Q1 CAPE

Date Collected: 2/15/11 15:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	590		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	510		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	15		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	7.3	J, CLP33	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	28		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	26	J, CLP33	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	12		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	17	J, CLP33	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	2.8	J, CLP01	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.4	J, CLP01	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.2	U, CLP18	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	13	J, CLP33	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.6	J, CLP01	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.24	U	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.83	U	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1400	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	940	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	270	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	330	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	5400	J, CLP02	ng/kg dry	9.9	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	380		ng/kg dry	9.9	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	28	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	55	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	22	J, D-5	ng/kg dry	22	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	21	J, D-5	ng/kg dry	21	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	27	J, D-5	ng/kg dry	27	2/21/11	2/25/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	7.8	J, Q-3	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462C2SF

Lab ID: C110907-06

MD No:

Station ID: 12462C

Matrix: Surface Soil

D No: 69Q1 CAPE

Date Collected: 2/15/11 15:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	8.3	J, Q-3	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0





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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462C2SEFX

Lab ID: C110907-07

MD No:

Station ID: 12462C

Matrix: Surface Soil

D No: 69Q2 CAPE

Date Collected: 2/15/11 15:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	22		%		3/04/11	3/08/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	590		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	690		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	17		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	10	J, CLP33	ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	42		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	29	J, CLP33	ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	17		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	19	J, CLP33	ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.2	J, CLP01	ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.7	J, CLP01	ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	21		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	5.2		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.28	U, CLP18	ng/kg dry	1.0	3/04/11	3/08/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.99	U	ng/kg dry	1.0	3/04/11	3/08/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1400	J, Q-3	ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1200	J, Q-3	ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	320	J, Q-3	ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	450	J, Q-3	ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	5500	J, CLP02	ng/kg dry	10	3/04/11	3/08/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	430		ng/kg dry	10	3/04/11	3/08/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	34	J, Q-3	ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	73	J, Q-3	ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	29	J, D-5	ng/kg dry	29	3/04/11	3/08/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	28	J, D-5	ng/kg dry	28	3/04/11	3/08/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	34	J, D-5	ng/kg dry	34	3/04/11	3/08/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	34	J, Q-3	ng/kg dry	1.0	3/04/11	3/08/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462C2SFX

Lab ID: C110907-07

MD No:

Station ID: 12462C

Matrix: Surface Soil

D No: 69Q2 CAPE

Date Collected: 2/15/11 15:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	12	J, Q-3	ng/kg dry	1.0	3/04/11	3/08/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GA1SF

Lab ID: C110907-08

MD No:

Station ID: 12462GA1

Matrix: Surface Soil

D No: 69Q3 CAPE

Date Collected: 2/15/11 14:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	28		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	750		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	150		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	8.7		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	9.7	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	11	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	46	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	4.7	J, CLP01, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	26	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.8	J, CLP01, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	3.4	J, CLP01	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.93	J, CLP01	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	6.0	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	2.3	J, CLP01	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.33	U	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.68	U, CLP18	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1700	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	440	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	350	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	180	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	7100	J, CLP02	ng/kg dry	9.9	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	360		ng/kg dry	9.9	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	31	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	30	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	16	J, D-5	ng/kg dry	16	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	16	J, D-5	ng/kg dry	16	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	26	J, D-5	ng/kg dry	26	2/21/11	2/25/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GA1SF

Lab ID: C110907-08

MD No:

Station ID: 12462GA1

Matrix: Surface Soil

D No: 69Q3 CAPE

Date Collected: 2/15/11 14:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.6	J, Q-3	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	2.6	J, Q-3	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GB1SF

Lab ID: C110907-09

MD No:

Station ID: 12462GB1

Matrix: Surface Soil

D No: 69Q4 CAPE

Date Collected: 2/15/11 14:35

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	25		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	190		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	49		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	2.6	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	2.4	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	3.1	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	16		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.4	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	8.3		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.63	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.0	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.27	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	2.0	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.40	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.23	U	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.67	U	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	430	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	130	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	110	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	46	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	2000		ng/kg dry	9.6	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	100		ng/kg dry	9.6	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	10	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	7.9	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	5.0	J, D-5	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	4.5	J, D-5	ng/kg dry	4.5	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	7.8	J, D-5	ng/kg dry	7.8	2/21/11	2/25/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.65	J, Q-3	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GB1SF

Lab ID: C110907-09

MD No:

Station ID: 12462GB1

Matrix: Surface Soil

D No: 69Q4 CAPE

Date Collected: 2/15/11 14:35

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	1.9	J, Q-3	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0





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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12463GB2SF

Lab ID: C110907-10

MD No:

Station ID: 12462GB2

Matrix: Surface Soil

D No: 69Q5 CAPE

Date Collected: 2/15/11 15:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	24		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	640		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	210		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	9.2		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	8.4	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	13	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	30	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	6.1	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	20	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.7	J, CLP01, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.7	J, CLP01	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.96	J, CLP01	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	7.6	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	2.3	J, CLP01	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.20	U	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.57	U	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1500	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	480	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	300	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	200	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	5600	J, CLP02	ng/kg dry	9.9	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	310		ng/kg dry	9.9	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	29	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	37	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	15	J, D-5	ng/kg dry	15	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	15	J, D-5	ng/kg dry	15	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	23	J, D-5	ng/kg dry	23	2/21/11	2/25/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.3	J, Q-3	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12463GB2SF

Lab ID: C110907-10

MD No:

Station ID: 12462GB2

Matrix: Surface Soil

D No: 69Q5 CAPE

Date Collected: 2/15/11 15:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	4.9	J, Q-3	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12463GC1SF

Lab ID: C110907-11

MD No:

Station ID: 12462GC1

Matrix: Surface Soil

D No: 69Q7 CAPE

Date Collected: 2/15/11 14:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	140		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	27		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.9	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.5	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	4.5	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.93	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.0	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.44	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.53	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.27	U	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.52	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.18	U	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.53	U	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	340	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	81	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	49	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	28	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1700		ng/kg dry	9.6	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	69		ng/kg dry	9.6	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	5.2	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	6.0	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	3.2	J, D-5	ng/kg dry	3.2	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.8	J, D-5	ng/kg dry	2.8	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	4.4	J, D-5	ng/kg dry	4.4	2/21/11	2/25/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.18	U, J, Q-3	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12463GC1SF

Lab ID: C110907-11

MD No:

Station ID: 12462GC1

Matrix: Surface Soil

D No: 69Q7 CAPE

Date Collected: 2/15/11 14:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	1.9	J, Q-3	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GC2SF

Lab ID: C110907-12

MD No:

Station ID: 12462GC2

Matrix: Surface Soil

D No: 69Q6 CAPE

Date Collected: 2/15/11 15:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	24		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	460		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	110		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	6.2		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	5.6		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	8.7		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	28		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	3.9	J, CLP01	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	17		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.5	J, CLP01	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.67	J, CLP01	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	5.1		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.8	J, CLP01	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.32	J, CLP01	ng/kg dry	0.98	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.75	U	ng/kg dry	0.98	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1200	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	290	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	240	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	120	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	4400	J, CLP02	ng/kg dry	9.8	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	220		ng/kg dry	9.8	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	30	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	26	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	12	J, D-5	ng/kg dry	12	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	11	J, D-5	ng/kg dry	11	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	18	J, D-5	ng/kg dry	18	2/21/11	2/25/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.5	J, Q-3	ng/kg dry	0.98	2/21/11	2/25/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GC2SF

Lab ID: C110907-12

MD No:

Station ID: 12462GC2

Matrix: Surface Soil

D No: 69Q6 CAPE

Date Collected: 2/15/11 15:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	5.4	J, Q-3	ng/kg dry	0.98	2/21/11	2/25/11	CL DLM02.0





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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12470A2SF

Lab ID: C110907-13

MD No:

Station ID: 12470

Matrix: Surface Soil

D No: 69Q8 CAPE

Date Collected: 2/15/11 11:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	11		%		2/21/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	3600		ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	350		ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	28		ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	11	J, CLP33, CLP01	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	18	J, CLP01, CLP33	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	47	J, CLP33	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	4.9	J, CLP01, CLP33	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	22	J, CLP01, CLP33	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	4.1	J, CLP01, CLP33	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.8	J, CLP01	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.4	U, CLP18	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	9.4	J, CLP01, CLP33	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.4	J, CLP01	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.64	U	ng/kg dry	4.7	2/21/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.89	U	ng/kg dry	4.7	2/21/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	12000	J, Q-3	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1700	J, Q-3	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	720	J, Q-3	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	430	J, Q-3	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	49000	J, CLP02	ng/kg dry	47	2/21/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	2000		ng/kg dry	47	2/21/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	30	J, Q-3	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	36	J, Q-3	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	26	J, D-5	ng/kg dry	26	2/21/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12470A2SF

Lab ID: C110907-13

MD No:

Station ID: 12470

Matrix: Surface Soil

D No: 69Q8 CAPE

Date Collected: 2/15/11 11:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	27	J, D-5	ng/kg dry	27	2/21/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	71	J, D-5	ng/kg dry	71	2/21/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.64	U, J, Q-3	ng/kg dry	4.7	2/21/11	3/03/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	2.6	J, Q-3	ng/kg dry	4.7	2/21/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12484A2SF

Lab ID: C110907-14

MD No:

Station ID: 12484

Matrix: Surface Soil

D No: 69Q9 CAPE

Date Collected: 2/14/11 16:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	19		%		2/21/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	770		ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	160		ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	11		ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	5.8	J, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	16	J, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	17	J, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	6.4	J, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	13	J, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	2.4	J, CLP01, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.1	J, CLP01	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.66	J, CLP01	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	7.3	J, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.5	J, CLP01	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.28	U, CLP18	ng/kg dry	0.96	2/21/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.91	U	ng/kg dry	0.96	2/21/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	2200	J, Q-3	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	480	J, Q-3	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	190	J, Q-3	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	200	J, Q-3	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	10000	J, CLP02	ng/kg dry	9.6	2/21/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	410		ng/kg dry	9.6	2/21/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	18	J, Q-3	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	31	J, Q-3	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	15	J, D-5	ng/kg dry	15	2/21/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	14	J, D-5	ng/kg dry	14	2/21/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	23	J, D-5	ng/kg dry	23	2/21/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.4	J, Q-3	ng/kg dry	0.96	2/21/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12484A2SF

Lab ID: C110907-14

MD No:

Station ID: 12484

Matrix: Surface Soil

D No: 69Q9 CAPE

Date Collected: 2/14/11 16:10

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	6.2	J, Q-3	ng/kg dry	0.96	2/21/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12486A2SF

Lab ID: C110907-15

MD No:

Station ID: 12486

Matrix: Surface Soil

D No: 69R0 CAPE

Date Collected: 2/14/11 16:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/21/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	2100		ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	360		ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	29		ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	14	J, CLP01, CLP33	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	38		ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	42	J, CLP33	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	15	J, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	23	J, CLP33, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	8.2	J, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	4.0	J, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	2.2	J, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	19	J, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	8.2	J, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	1.1	U	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.8	U	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	2100	J, Q-3	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1400	J, Q-3	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	480	J, Q-3	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	490	J, Q-3	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	32000	J, CLP02	ng/kg dry	49	2/21/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	1300		ng/kg dry	49	2/21/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	40	J, Q-3	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	83	J, Q-3	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	36	J, D-5	ng/kg dry	36	2/21/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	34	J, D-5	ng/kg dry	34	2/21/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	59	J, D-5	ng/kg dry	59	2/21/11	3/03/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12486A2SF

Lab ID: C110907-15

MD No:

Station ID: 12486

Matrix: Surface Soil

D No: 69R0 CAPE

Date Collected: 2/14/11 16:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
41903-57-5	Tetrachlorodibenzodioxin (Total)	5.2	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	13	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12490A2SF

Lab ID: C110907-16

MD No:

Station ID: 12490

Matrix: Surface Soil

D No: 69R1 CAPE

Date Collected: 2/15/11 9:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	24		%		2/21/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	220		ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	29		ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	2.6	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.9	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	2.2	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	4.7	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.4	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.47	U	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.48	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.30	U	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.5	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.53	U, CLP18	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.21	U	ng/kg dry	0.98	2/21/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.68	U	ng/kg dry	0.98	2/21/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	640	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	100	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	52	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	34	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	3200		ng/kg dry	9.8	2/21/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	98		ng/kg dry	9.8	2/21/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	5.6	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	6.7	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	3.8	J, D-5	ng/kg dry	3.8	2/21/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	3.4	J, D-5	ng/kg dry	3.4	2/21/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	5.9	J, D-5	ng/kg dry	5.9	2/21/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.47	J, Q-3	ng/kg dry	0.98	2/21/11	3/03/11	CL DLM02.0





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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12490A2SF

Lab ID: C110907-16

MD No:

Station ID: 12490

Matrix: Surface Soil

D No: 69R1 CAPE

Date Collected: 2/15/11 9:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	2.5	J, Q-3	ng/kg dry	0.98	2/21/11	3/03/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12490A2SFX

Lab ID: C110907-17

MD No:

Station ID: 12490

Matrix: Surface Soil

D No: 69R2 CAPE

Date Collected: 2/15/11 9:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	25		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	180		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	22		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	2.2	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.4	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.8	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	3.7	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.84	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	2.5	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.45	U	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.34	U, CLP18	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.29	U	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.58	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.19	U	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.56	U, CLP18	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	490	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	78	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	44	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	27	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	2300		ng/kg dry	9.6	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	73		ng/kg dry	9.6	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	4.2	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	5.9	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	3.1	J, D-5	ng/kg dry	3.1	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.7	J, D-5	ng/kg dry	2.7	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	4.7	J, D-5	ng/kg dry	4.7	2/21/11	2/25/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.67	J, Q-3	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12490A2SFX

Lab ID: C110907-17

MD No:

Station ID: 12490

Matrix: Surface Soil

D No: 69R2 CAPE

Date Collected: 2/15/11 9:10

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	2.2	J, Q-3	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12491A2SF

Lab ID: C110907-18

MD No:

Station ID: 12491

Matrix: Surface Soil

D No: 69R3 CAPE

Date Collected: 2/15/11 9:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	160		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	17		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	2.0	U, CLP18	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	3.6	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.59	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.29	U	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.65	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.16	U	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.89	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.42	U, CLP18	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.14	U, CLP18	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.46	U	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	550	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	62	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	48	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	21	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1700		ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	60		ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	4.9	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	3.7	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.9	J, D-5	ng/kg dry	2.9	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.9	J, D-5	ng/kg dry	2.9	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	4.4	J, D-5	ng/kg dry	4.4	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.72	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12491A2SF

Lab ID: C110907-18

MD No:

Station ID: 12491

Matrix: Surface Soil

D No: 69R3 CAPE

Date Collected: 2/15/11 9:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	1.8	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12520A2SF

Lab ID: C110907-19

MD No:

Station ID: 12520

Matrix: Surface Soil

D No: 69R4 CAPE

Date Collected: 2/15/11 10:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	320		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	37		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.2	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.5	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	2.4	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	7.1		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	5.5		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.75	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.1	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.39	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.67	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.21	J, CLP01	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.88	U	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1400	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	140	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	96	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	39	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	4400	J, CLP02	ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	150		ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	7.7	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	6.8	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	5.5	J, D-5	ng/kg dry	5.5	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	5.3	J, D-5	ng/kg dry	5.3	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	8.8	J, D-5	ng/kg dry	8.8	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.2	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12520A2SF

Lab ID: C110907-19

MD No:

Station ID: 12520

Matrix: Surface Soil

D No: 69R4 CAPE

Date Collected: 2/15/11 10:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	4.4	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0





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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12522A2SF

Lab ID: C110907-20

MD No:

Station ID: 12522

Matrix: Surface Soil

D No: 69R5 CAPE

Date Collected: 2/15/11 10:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	23		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	250		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	51		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.4	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.1	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	7.9		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	7.6		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	5.6		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	5.7		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.9	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	4.1	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	6.7		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	7.0		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.61	U, CLP18	ng/kg dry	0.96	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	4.3	CLP10	ng/kg dry	0.96	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	720	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	140	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	98	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	89	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	3200		ng/kg dry	9.6	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	120		ng/kg dry	9.6	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	36	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	78	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	18	J, D-5	ng/kg dry	18	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	11	J, D-5	ng/kg dry	11	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	13	J, D-5	ng/kg dry	13	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	38	J, Q-3	ng/kg dry	0.96	2/22/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12522A2SF

Lab ID: C110907-20

MD No:

Station ID: 12522

Matrix: Surface Soil

D No: 69R5 CAPE

Date Collected: 2/15/11 10:15

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	120	J, Q-3	ng/kg dry	0.96	2/22/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12621A2SF

Lab ID: C110907-21

MD No:

Station ID: 12621

Matrix: Surface Soil

D No: 69R6 CAPE

Date Collected: 2/15/11 9:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	18		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	450		ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	87		ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	6.1		ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.8	J, CLP01	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	6.9		ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	11		ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.7	J, CLP01	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	8.8		ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.5	J, CLP01	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.4	J, CLP01	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.49	U, CLP18	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	4.0	J, CLP01	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.8	J, CLP01	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.17	U	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.76	U	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1200	J, Q-3	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	270	J, Q-3	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	120	J, Q-3	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	100	J, Q-3	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	5500	J, CLP02	ng/kg dry	9.9	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	240		ng/kg dry	9.9	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	12	J, Q-3	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	20	J, Q-3	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	8.8	J, D-5	ng/kg dry	8.8	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	8.1	J, D-5	ng/kg dry	8.1	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	13	J, D-5	ng/kg dry	13	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.8	J, Q-3	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12621A2SF

Lab ID: C110907-21

MD No:

Station ID: 12621

Matrix: Surface Soil

D No: 69R6 CAPE

Date Collected: 2/15/11 9:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	6.5	J, Q-3	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12622A2SF

Lab ID: C110907-22

MD No:

Station ID: 12622

Matrix: Surface Soil

D No: 69R7 CAPE

Date Collected: 2/15/11 9:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	380		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	73		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	4.7	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.0	U, CLP18	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	5.9		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	11		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.3	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	6.2		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.3	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.98	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.52	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	3.2	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.3	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.15	U	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.77	U, CLP18	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	970	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	240	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	96	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	92	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	4700	J, CLP02	ng/kg dry	9.9	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	200		ng/kg dry	9.9	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	9.5	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	16	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	7.0	J, D-5	ng/kg dry	7.0	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	6.4	J, D-5	ng/kg dry	6.4	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	11	J, D-5	ng/kg dry	11	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.6	J, Q-3	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12622A2SF

Lab ID: C110907-22

MD No:

Station ID: 12622

Matrix: Surface Soil

D No: 69R7 CAPE

Date Collected: 2/15/11 9:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	5.6	J, Q-3	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12623A2SF

Lab ID: C110907-23

MD No:

Station ID: 12623

Matrix: Surface Soil

D No: 69R8 CAPE

Date Collected: 2/15/11 9:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1600		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	290		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	26		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	13	J, CLP33	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	37		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	48	J, CLP33	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	15		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	15	J, CLP33	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	10		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.2	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	2.9	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	24	J, CLP33	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	24		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.25	U, CLP18	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.3	U, B-4	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	4400	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1300	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	370	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	640	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	21000	J, CLP02	ng/kg dry	9.8	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	1100		ng/kg dry	9.8	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	25	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	280	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	47	J, D-5	ng/kg dry	47	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	38	J, D-5	ng/kg dry	38	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	53	J, D-5	ng/kg dry	53	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	4.6	J, Q-3	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0





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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12623A2SF

Lab ID: C110907-23

MD No:

Station ID: 12623

Matrix: Surface Soil

D No: 69R8 CAPE

Date Collected: 2/15/11 9:00

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	54	J, Q-3	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12624B2SF

Lab ID: C110907-24

MD No:

Station ID: 12624

Matrix: Surface Soil

D No: 69S0 CAPE

Date Collected: 2/14/11 15:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	16		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1400		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	260		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	24		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	12	J, CLP33	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	36		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	32	J, CLP33	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	8.3		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	12	J, CLP33	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	8.1		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.7	U, CLP18	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.8	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	14		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	7.9		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.30	U, CLP18	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.86	U	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1400	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1200	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	270	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	480	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	20000	J, CLP02	ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	960		ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	12	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	56	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	26	J, D-5	ng/kg dry	26	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	25	J, D-5	ng/kg dry	25	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	40	J, D-5	ng/kg dry	40	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.2	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12624B2SF

Lab ID: C110907-24

MD No:

Station ID: 12624

Matrix: Surface Soil

D No: 69S0 CAPE

Date Collected: 2/14/11 15:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	5.7	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12629A2SF

Lab ID: C110907-25

MD No:

Station ID: 12629

Matrix: Surface Soil

D No: 69S1 CAPE

Date Collected: 2/14/11 16:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	2500		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	480		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	39		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	9.7	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	53		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	56		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	14	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	20	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	13	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.6	U, CLP18	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	2.6	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	21	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	9.4	U, CLP18	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.66	U	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.3	U	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	2500	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	2000	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	420	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	740	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	32000	J, CLP02	ng/kg dry	48	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	1800		ng/kg dry	48	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	23	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	90	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	39	J, D-5	ng/kg dry	39	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	35	J, D-5	ng/kg dry	35	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	65	J, D-5	ng/kg dry	65	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.66	U, J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12629A2SF

Lab ID: C110907-25

MD No:

Station ID: 12629

Matrix: Surface Soil

D No: 69S1 CAPE

Date Collected: 2/14/11 16:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	8.6	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12630A2SF

Lab ID: C110907-26

MD No:

Station ID: 12630

Matrix: Surface Soil

D No: 69S2 CAPE

Date Collected: 2/14/11 16:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	15		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	170		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	35		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	2.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.9	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	2.7	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	4.6	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.9	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.51	U, CLP18	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.78	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.27	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.7	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.86	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.12	U	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.61	U	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	460	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	99	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	49	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	39	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	2400		ng/kg dry	9.8	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	76		ng/kg dry	9.8	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	6.3	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	9.1	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	4.3	J, D-5	ng/kg dry	4.3	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	3.8	J, D-5	ng/kg dry	3.8	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	5.7	J, D-5	ng/kg dry	5.7	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.2	J, Q-3	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12630A2SF

Lab ID: C110907-26

MD No:

Station ID: 12630

Matrix: Surface Soil

D No: 69S2 CAPE

Date Collected: 2/14/11 16:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	3.9	J, Q-3	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0





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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12633A2SF

Lab ID: C110907-27

MD No:

Station ID: 12633

Matrix: Surface Soil

D No: 69S3 CAPE

Date Collected: 2/15/11 8:22

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	16		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	120		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	43		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.5	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.4	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	2.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	4.9	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.5	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.25	U	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.69	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.35	U, CLP18	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.9	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.81	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.16	U, CLP18	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.67	U, CLP18	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	320	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	94	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	45	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	40	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1300		ng/kg dry	9.9	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	56		ng/kg dry	9.9	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	6.5	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	11	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	4.1	J, D-5	ng/kg dry	4.1	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	3.3	J, D-5	ng/kg dry	3.3	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	4.7	J, D-5	ng/kg dry	4.7	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.7	J, Q-3	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12633A2SF

Lab ID: C110907-27

MD No:

Station ID: 12633

Matrix: Surface Soil

D No: 69S3 CAPE

Date Collected: 2/15/11 8:22

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	5.4	J, Q-3	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12634A2SF

Lab ID: C110907-28

MD No:

Station ID: 12634

Matrix: Surface Soil

D No: 69S4 CAPE

Date Collected: 2/15/11 8:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	15		%		2/22/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	290		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	84		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	4.0	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	2.8	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	4.5	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	9.4		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.7	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	6.1		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.4	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.35	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	3.9	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	2.8	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.45	U, CLP18	ng/kg dry	0.97	2/22/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.83	U	ng/kg dry	0.97	2/22/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	680	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	220	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	85	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	94	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	3100		ng/kg dry	9.7	2/22/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	170		ng/kg dry	9.7	2/22/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	14	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	54	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	9.0	J, D-5	ng/kg dry	9.0	2/22/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	7.6	J, D-5	ng/kg dry	7.6	2/22/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	11	J, D-5	ng/kg dry	11	2/22/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	5.2	J, Q-3	ng/kg dry	0.97	2/22/11	3/03/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12634A2SF

Lab ID: C110907-28

MD No:

Station ID: 12634

Matrix: Surface Soil

D No: 69S4 CAPE

Date Collected: 2/15/11 8:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	43	J, Q-3	ng/kg dry	0.97	2/22/11	3/03/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13723A2SF

Lab ID: C110907-29

MD No:

Station ID: 13723

Matrix: Surface Soil

D No: 69S5 CAPE

Date Collected: 2/14/11 16:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/22/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1600		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	330		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	27		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	14	J, CLP33	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	42		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	40	J, CLP33	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	11	J, CLP33	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	16	J, CLP33	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	7.1		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.6	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	17		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	9.3		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.31	U, CLP18	ng/kg dry	0.96	2/22/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.8	CLP10	ng/kg dry	0.96	2/22/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	4200	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1200	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	330	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	510	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	20000	J, CLP02	ng/kg dry	9.6	2/22/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	990		ng/kg dry	9.6	2/22/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	26	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	130	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	32	J, D-5	ng/kg dry	32	2/22/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	30	J, D-5	ng/kg dry	30	2/22/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	46	J, D-5	ng/kg dry	46	2/22/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	5.6	J, Q-3	ng/kg dry	0.96	2/22/11	3/03/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13723A2SF

Lab ID: C110907-29

MD No:

Station ID: 13723

Matrix: Surface Soil

D No: 69S5 CAPE

Date Collected: 2/14/11 16:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	42	J, Q-3	ng/kg dry	0.96	2/22/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13743A2SF

Lab ID: C110907-30

MD No:

Station ID: 13743

Matrix: Surface Soil

D No: 69S6 CAPE

Date Collected: 2/15/11 16:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	18		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	280		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	58		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.9	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	2.0	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	5.2		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	7.5		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.8	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	4.0	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.97	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.74	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.29	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	2.6	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.16	U, CLP18	ng/kg dry	0.98	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.58	U	ng/kg dry	0.98	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	770	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	180	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	68	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	76	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	3900		ng/kg dry	9.8	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	140		ng/kg dry	9.8	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	6.4	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	13	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	5.5	J, D-5	ng/kg dry	5.5	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	5.0	J, D-5	ng/kg dry	5.0	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	8.3	J, D-5	ng/kg dry	8.3	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.91	J, Q-3	ng/kg dry	0.98	2/22/11	3/04/11	CL DLM02.0





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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13743A2SF

Lab ID: C110907-30

MD No:

Station ID: 13743

Matrix: Surface Soil

D No: 69S6 CAPE

Date Collected: 2/15/11 16:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	3.7	J, Q-3	ng/kg dry	0.98	2/22/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13744A2SF

Lab ID: C110907-31

MD No:

Station ID: 13744A

Matrix: Surface Soil

D No: 69S7 CAPE

Date Collected: 2/14/11 15:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	26		%		2/22/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1400		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	260		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	23		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	12	J, CLP33	ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	34	J, CLP33	ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	34	J, CLP33	ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	7.6		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	12	J, CLP33	ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	6.4		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.6	J, CLP01	ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.3	J, CLP01	ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	13		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	6.2		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.16	U, CLP18	ng/kg dry	0.99	2/22/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.78	U	ng/kg dry	0.99	2/22/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	4000	J, Q-3	ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1100	J, Q-3	ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	290	J, Q-3	ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	430	J, Q-3	ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	19000	J, CLP02	ng/kg dry	9.9	2/22/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	830		ng/kg dry	9.9	2/22/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	17	J, Q-3	ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	53	J, Q-3	ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	23	J, D-5	ng/kg dry	23	2/22/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	23	J, D-5	ng/kg dry	23	2/22/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	38	J, D-5	ng/kg dry	38	2/22/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.8	J, Q-3	ng/kg dry	0.99	2/22/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13744A2SF

Lab ID: C110907-31

MD No:

Station ID: 13744A

Matrix: Surface Soil

D No: 69S7 CAPE

Date Collected: 2/14/11 15:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	6.0	J, Q-3	ng/kg dry	0.99	2/22/11	3/03/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13744B2SB12

Lab ID: C110907-32

MD No:

Station ID: 13744B

Matrix: Subsurface Soil

D No: 69S8 CAPE

Date Collected: 2/14/11 15:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	19		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	52		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	11		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.92	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.30	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.9	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	1.2	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.53	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	0.62	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.42	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.14	U	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.086	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.81	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.38	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.074	U	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.49	U	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	130	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	39	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	10	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	810		ng/kg dry	9.6	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	25		ng/kg dry	9.6	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	1.2	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	2.9	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	1.8	J, D-5	ng/kg dry	1.8	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	1.2	J, D-5	ng/kg dry	1.2	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	1.8	J, D-5	ng/kg dry	1.8	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.28	J, Q-3	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13744B2SB12

Lab ID: C110907-32

MD No:

Station ID: 13744B

Matrix: Subsurface Soil

D No: 69S8 CAPE

Date Collected: 2/14/11 15:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	1.6	J, Q-3	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13744B2SF

Lab ID: C110907-33

MD No:

Station ID: 13744B

Matrix: Surface Soil

D No: 69S9 CAPE

Date Collected: 2/14/11 15:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	23		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	2700		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	540		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	50		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	13	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	74		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	74		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	19	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	26		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	16	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	4.0	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	2.7	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	30		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	14	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.52	U	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.2	U	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	2700	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	2200	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	520	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	950	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	35000	J, CLP02	ng/kg dry	48	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	1600		ng/kg dry	48	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	35	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	120	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	50	J, D-5	ng/kg dry	50	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	45	J, D-5	ng/kg dry	45	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	78	J, D-5	ng/kg dry	78	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.98	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13744B2SF

Lab ID: C110907-33

MD No:

Station ID: 13744B

Matrix: Surface Soil

D No: 69S9 CAPE

Date Collected: 2/14/11 15:10

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	10	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0





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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13746A2SF

Lab ID: C110907-34

MD No:

Station ID: 13746

Matrix: Surface Soil

D No: 69T0 CAPE

Date Collected: 2/15/11 11:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	18		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	760		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	180		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	12		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	4.9		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	14		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	22		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	4.9		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	12		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	2.6	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.7	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.91	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	8.2		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.2	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.26	U, CLP18	ng/kg dry	0.97	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.86	U	ng/kg dry	0.97	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1700	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	600	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	170	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	230	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	8100	J, CLP02	ng/kg dry	9.7	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	540		ng/kg dry	9.7	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	17	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	47	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	14	J, D-5	ng/kg dry	14	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	13	J, D-5	ng/kg dry	13	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	22	J, D-5	ng/kg dry	22	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	4.6	J, Q-3	ng/kg dry	0.97	2/22/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13746A2SF

Lab ID: C110907-34

MD No:

Station ID: 13746

Matrix: Surface Soil

D No: 69T0 CAPE

Date Collected: 2/15/11 11:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	12	J, Q-3	ng/kg dry	0.97	2/22/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13750A2SF

Lab ID: C110907-35

MD No:

Station ID: 13750

Matrix: Surface Soil

D No: 69T1 CAPE

Date Collected: 2/15/11 10:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	21		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	530		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	110		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	7.9		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	4.4	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	11		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	16		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	4.8	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	10		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	2.5	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.7	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	6.7		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	4.0	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.25	U, CLP18	ng/kg dry	0.99	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.4	U, B-4	ng/kg dry	0.99	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1200	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	360	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	140	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	170	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	5700	J, CLP02	ng/kg dry	9.9	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	270		ng/kg dry	9.9	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	19	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	51	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	14	J, D-5	ng/kg dry	14	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	11	J, D-5	ng/kg dry	11	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	17	J, D-5	ng/kg dry	17	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	6.0	J, Q-3	ng/kg dry	0.99	2/22/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13750A2SF

Lab ID: C110907-35

MD No:

Station ID: 13750

Matrix: Surface Soil

D No: 69T1 CAPE

Date Collected: 2/15/11 10:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	24	J, Q-3	ng/kg dry	0.99	2/22/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13753A2SF

Lab ID: C110907-36

MD No:

Station ID: 13753

Matrix: Surface Soil

D No: 69T2 CAPE

Date Collected: 2/15/11 10:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	810		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	190		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	13		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	8.2	J, CLP33	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	17		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	30	J, CLP33	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	6.5		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	16	J, CLP33	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.0	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.5	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.5	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	10		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	4.4	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	5.9		ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.0	U, B-4	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1800	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	570	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	220	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	260	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	7400	J, CLP02	ng/kg dry	9.6	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	410		ng/kg dry	9.6	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	23	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	62	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	23	J, D-5	ng/kg dry	23	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	22	J, D-5	ng/kg dry	22	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	31	J, D-5	ng/kg dry	31	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	11	J, Q-3	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13753A2SF

Lab ID: C110907-36

MD No:

Station ID: 13753

Matrix: Surface Soil

D No: 69T2 CAPE

Date Collected: 2/15/11 10:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	17	J, Q-3	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13755A2SF

Lab ID: C110907-37

MD No:

Station ID: 13755

Matrix: Surface Soil

D No: 69T3 CAPE

Date Collected: 2/15/11 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	18		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	570		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	190		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	13		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	6.6	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	8.6	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	22	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	4.7	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	9.2	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.7	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.7	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	8.9	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	7.2		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.16	U, CLP18	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.1	U, B-4	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1100	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	720	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	120	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	290	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	4300	J, CLP02	ng/kg dry	9.9	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	560		ng/kg dry	9.9	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	13	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	120	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	17	J, D-5	ng/kg dry	17	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	15	J, D-5	ng/kg dry	15	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	20	J, D-5	ng/kg dry	20	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	3.7	J, Q-3	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0





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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13755A2SF

Lab ID: C110907-37

MD No:

Station ID: 13755

Matrix: Surface Soil

D No: 69T3 CAPE

Date Collected: 2/15/11 10:00

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	34	J, Q-3	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13756A2SF

Lab ID: C110907-38

MD No:

Station ID: 13756

Matrix: Surface Soil

D No: 69T4 CAPE

Date Collected: 2/15/11 9:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	26		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	230		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	55		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.5	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.0	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	4.4	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	8.1	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.5	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	5.3	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.58	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	4.1	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.16	J, CLP01	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.1	U, B-4	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	530	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	160	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	71	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	91	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	2500		ng/kg dry	9.8	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	120		ng/kg dry	9.8	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	11	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	44	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	8.7	J, D-5	ng/kg dry	8.7	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	6.9	J, D-5	ng/kg dry	6.9	2/24/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13756A2SF

Lab ID: C110907-38

MD No:

Station ID: 13756

Matrix: Surface Soil

D No: 69T4 CAPE

Date Collected: 2/15/11 9:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	8.9	J, D-5	ng/kg dry	8.9	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.9	J, Q-3	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	15	J, Q-3	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13758A2SF

Lab ID: C110907-39

MD No:

Station ID: 13758

Matrix: Surface Soil

D No: 69T5 CAPE

Date Collected: 2/15/11 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	27		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	400		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	100		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	5.5		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	4.5	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	7.9	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	13	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	4.4	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	9.0	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.8	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.0	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	6.2	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	4.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.43	U, CLP18	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.7	CLP10	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	900	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	280	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	120	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	150	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	4600	J, CLP02	ng/kg dry	9.9	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	200		ng/kg dry	9.9	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	22	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	50	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	14	J, D-5	ng/kg dry	14	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	11	J, D-5	ng/kg dry	11	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	15	J, D-5	ng/kg dry	15	2/24/11	3/03/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13758A2SF

Lab ID: C110907-39

MD No:

Station ID: 13758

Matrix: Surface Soil

D No: 69T5 CAPE

Date Collected: 2/15/11 9:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
41903-57-5	Tetrachlorodibenzodioxin (Total)	12	J, Q-3	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	26	J, Q-3	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13758A2SFX

Lab ID: C110907-40

MD No:

Station ID: 13758

Matrix: Surface Soil

D No: 69T6 CAPE

Date Collected: 2/15/11 9:32

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	28		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1600		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	370		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	31		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	8.8	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	54	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	44	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	14	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	20	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	9.8		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	4.0	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	3.3	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	24	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	13		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.60	U, CLP18	ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	2.6	CLP10	ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	4200	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1400	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	320	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	710	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	22000	J, CLP02	ng/kg dry	9.7	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	970		ng/kg dry	9.7	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	36	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	120	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	41	J, D-5	ng/kg dry	41	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	34	J, D-5	ng/kg dry	34	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	54	J, D-5	ng/kg dry	54	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	18	J, Q-3	ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13758A2SFX

Lab ID: C110907-40

MD No:

Station ID: 13758

Matrix: Surface Soil

D No: 69T6 CAPE

Date Collected: 2/15/11 9:32

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	46	J, Q-3	ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0





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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13759A2SF

Lab ID: C110907-41

MD No:

Station ID: 13759

Matrix: Surface Soil

D No: 69T7 CAPE

Date Collected: 2/15/11 9:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	21		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	840		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	240		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	12		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	11	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	13	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	30	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	7.5	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	17	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.4	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.9	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.4	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	12	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	8.3		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.38	J, CLP01	ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.2	U, B-4	ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1700	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	700	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	240	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	340	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	8800	J, CLP02	ng/kg dry	9.7	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	430		ng/kg dry	9.7	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	25	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	110	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	23	J, D-5	ng/kg dry	23	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	21	J, D-5	ng/kg dry	21	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	29	J, D-5	ng/kg dry	29	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	8.1	J, Q-3	ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13759A2SF

Lab ID: C110907-41

MD No:

Station ID: 13759

Matrix: Surface Soil

D No: 69T7 CAPE

Date Collected: 2/15/11 9:15

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	32	J, Q-3	ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13761A2SF

Lab ID: C110907-42

MD No:

Station ID: 13761

Matrix: Surface Soil

D No: 69T8 CAPE

Date Collected: 2/15/11 9:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	2600		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	850		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	79		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	23	J, CLP01	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	44		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	78		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	20	J, CLP01	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	31		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	7.4	J, CLP01	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	5.0	J, CLP01	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.5	J, CLP01	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	40		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	7.5	J, CLP01	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.67	U	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.2	U	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	5100	J, Q-3	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	3700	J, Q-3	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	470	J, Q-3	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	1100	J, Q-3	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	22000	J, CLP02	ng/kg dry	48	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	3600		ng/kg dry	48	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	39	J, Q-3	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	180	J, Q-3	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	45	J, D-5	ng/kg dry	45	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	48	J, D-5	ng/kg dry	48	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	75	J, D-5	ng/kg dry	75	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.7	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13761A2SF

Lab ID: C110907-42

MD No:

Station ID: 13761

Matrix: Surface Soil

D No: 69T8 CAPE

Date Collected: 2/15/11 9:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	31	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13762A2SF

Lab ID: C110907-43

MD No:

Station ID: 13762

Matrix: Surface Soil

D No: 69T9 CAPE

Date Collected: 2/15/11 8:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	150		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	27		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.7	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	2.5	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	4.3	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.4	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.9	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.54	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.84	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.34	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.8	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.4	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.20	U, CLP18	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.79	U	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	370	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	70	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	48	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	43	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	3300		ng/kg dry	9.8	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	46		ng/kg dry	9.8	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	7.3	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	5.2	J, D-5	ng/kg dry	5.2	2/24/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13762A2SF

Lab ID: C110907-43

MD No:

Station ID: 13762

Matrix: Surface Soil

D No: 69T9 CAPE

Date Collected: 2/15/11 8:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	4.1	J, D-5	ng/kg dry	4.1	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	6.0	J, D-5	ng/kg dry	6.0	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	3.2	J, Q-3	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	9.4	J, Q-3	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13764A2SF

Lab ID: C110907-44

MD No:

Station ID: 13764

Matrix: Surface Soil

D No: 69W0 CAPE

Date Collected: 2/15/11 15:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	110		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	24		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.2	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.9	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	3.6	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	2.8	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.44	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.76	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.28	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.4	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.67	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.20	U, CLP18	ng/kg dry	0.96	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.86	U	ng/kg dry	0.96	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	270	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	64	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	39	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	29	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1700		ng/kg dry	9.6	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	47		ng/kg dry	9.6	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	8.9	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	8.8	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	3.9	J, D-5	ng/kg dry	3.9	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	3.1	J, D-5	ng/kg dry	3.1	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	4.4	J, D-5	ng/kg dry	4.4	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.3	J, Q-3	ng/kg dry	0.96	2/24/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13764A2SF

Lab ID: C110907-44

MD No:

Station ID: 13764

Matrix: Surface Soil

D No: 69W0 CAPE

Date Collected: 2/15/11 15:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	6.7	J, Q-3	ng/kg dry	0.96	2/24/11	3/03/11	CL DLM02.0





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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13764A2SFX

Lab ID: C110907-45

MD No:

Station ID: 13764

Matrix: Surface Soil

D No: 69W1 CAPE

Date Collected: 2/15/11 15:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	100		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	21		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.4	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	3.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.94	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	2.6	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.38	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.57	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.23	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.62	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.17	J, CLP01	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.62	U	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	500	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	80	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	65	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	31	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1300		ng/kg dry	9.9	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	42		ng/kg dry	9.9	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	8.2	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	9.2	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	3.2	J, D-5	ng/kg dry	3.2	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.6	J, D-5	ng/kg dry	2.6	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	3.8	J, D-5	ng/kg dry	3.8	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	3.1	J, Q-3	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13764A2SFX

Lab ID: C110907-45

MD No:

Station ID: 13764

Matrix: Surface Soil

D No: 69W1 CAPE

Date Collected: 2/15/11 15:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	7.3	J, Q-3	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13766A2SF

Lab ID: C110907-46

MD No:

Station ID: 13766

Matrix: Surface Soil

D No: 69W2 CAPE

Date Collected: 2/15/11 8:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	14		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	340		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	190		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	7.4		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.5	J, CLP01	ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	9.6		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	13		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	5.3		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	8.2		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.5	J, CLP01	ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.81	J, CLP01	ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	8.0		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.2	J, CLP01	ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.18	J, CLP01	ng/kg dry	0.94	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.82	U	ng/kg dry	0.94	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	720	J, Q-3	ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	410	J, Q-3	ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	110	J, Q-3	ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	170	J, Q-3	ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	2900		ng/kg dry	9.4	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	300		ng/kg dry	9.4	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	14	J, Q-3	ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	46	J, Q-3	ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	12	J, D-5	ng/kg dry	12	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	10	J, D-5	ng/kg dry	10	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	14	J, D-5	ng/kg dry	14	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.7	J, Q-3	ng/kg dry	0.94	2/24/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13766A2SF

Lab ID: C110907-46

MD No:

Station ID: 13766

Matrix: Surface Soil

D No: 69W2 CAPE

Date Collected: 2/15/11 8:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	12	J, Q-3	ng/kg dry	0.94	2/24/11	3/03/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13767A2SF

Lab ID: C110907-47

MD No:

Station ID: 13767

Matrix: Surface Soil

D No: 69W3 CAPE

Date Collected: 2/14/11 14:58

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	15		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	730		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	110		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	11		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	5.8	J, CLP33	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	14	J, CLP33	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	17	J, CLP33	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	3.9	J, CLP01, CLP33	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	7.2	J, CLP33	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.5	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.3	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.66	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	6.7	J, CLP33	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.1	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.24	U, CLP18	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.66	U	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	2700	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	440	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	200	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	220	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	12000	J, CLP02	ng/kg dry	9.6	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	340		ng/kg dry	9.6	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	14	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	28	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	13	J, D-5	ng/kg dry	13	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	12	J, D-5	ng/kg dry	12	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	21	J, D-5	ng/kg dry	21	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.6	J, Q-3	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13767A2SF

Lab ID: C110907-47

MD No:

Station ID: 13767

Matrix: Surface Soil

D No: 69W3 CAPE

Date Collected: 2/14/11 14:58

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	5.6	J, Q-3	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13774A2SF

Lab ID: C110907-48

MD No:

Station ID: 13774

Matrix: Surface Soil

D No: 69W4 CAPE

Date Collected: 2/15/11 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	85		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	17		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.79	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	0.93	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	2.4	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.55	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	1.9	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.30	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.45	U, CLP18	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.22	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.96	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.51	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.19	J, CLP01	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.54	U	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	210	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	42	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	26	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1500		ng/kg dry	9.7	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	39		ng/kg dry	9.7	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	3.9	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	6.6	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.7	J, D-5	ng/kg dry	2.7	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.2	J, D-5	ng/kg dry	2.2	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	3.2	J, D-5	ng/kg dry	3.2	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.1	J, Q-3	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13774A2SF

Lab ID: C110907-48

MD No:

Station ID: 13774

Matrix: Surface Soil

D No: 69W4 CAPE

Date Collected: 2/15/11 11:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	4.4	J, Q-3	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0





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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13775A2SB12

Lab ID: C110907-49

MD No:

Station ID: 13775

Matrix: Subsurface Soil

D No: 69W5 CAPE

Date Collected: 2/15/11 12:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	13		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	30		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	5.8		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.41	U, CLP18	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.28	U, CLP18	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	0.32	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	1.1	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.23	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	0.98	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.16	U	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.36	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.13	U	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.30	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.33	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.11	U	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.53	U	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	73	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	16	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	11	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	7.0	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	630		ng/kg dry	9.6	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	11		ng/kg dry	9.6	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	2.0	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	3.2	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	1.7	J, D-5	ng/kg dry	1.7	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	1.1	J, D-5	ng/kg dry	1.1	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	1.5	J, D-5	ng/kg dry	1.5	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.48	J, Q-3	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13775A2SB12

Lab ID: C110907-49

MD No:

Station ID: 13775

Matrix: Subsurface Soil

D No: 69W5 CAPE

Date Collected: 2/15/11 12:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	2.1	J, Q-3	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13775A2SF

Lab ID: C110907-50

MD No:

Station ID: 13775

Matrix: Surface Soil

D No: 69W6 CAPE

Date Collected: 2/15/11 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	22		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	95		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	13		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.98	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.97	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	2.8	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.51	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	2.0	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.42	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.42	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.28	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.97	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.57	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.13	J, CLP01	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.61	U, CLP18	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	260	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	40	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	29	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1700		ng/kg dry	9.8	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	31		ng/kg dry	9.8	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	4.2	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	6.5	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.7	J, D-5	ng/kg dry	2.7	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.1	J, D-5	ng/kg dry	2.1	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	3.3	J, D-5	ng/kg dry	3.3	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.7	J, Q-3	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13775A2SF

Lab ID: C110907-50

MD No:

Station ID: 13775

Matrix: Surface Soil

D No: 69W6 CAPE

Date Collected: 2/15/11 12:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	4.8	J, Q-3	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13785A2SF

Lab ID: C110907-51

MD No:

Station ID: 13785

Matrix: Surface Soil

D No: 69W7 CAPE

Date Collected: 2/15/11 15:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	18		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	480		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	100		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	6.3		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.3	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	3.9	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	15		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	6.0		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.98	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.4	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.57	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	3.3	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.29	U, CLP18	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.95	U	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1400	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	460	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	140	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	120	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	4800	J, CLP02	ng/kg dry	9.8	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	380		ng/kg dry	9.8	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	16	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	7.8	J, D-5	ng/kg dry	7.8	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	7.3	J, D-5	ng/kg dry	7.3	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	13	J, D-5	ng/kg dry	13	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	4.4	J, Q-3	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13785A2SF

Lab ID: C110907-51

MD No:

Station ID: 13785

Matrix: Surface Soil

D No: 69W7 CAPE

Date Collected: 2/15/11 15:10

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	10	J, Q-3	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13889A2SF

Lab ID: C110907-52

MD No:

Station ID: 13889

Matrix: Surface Soil

D No: 69W8 CAPE

Date Collected: 2/15/11 14:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	170		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	36		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	2.3	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	2.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	2.0	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	5.4		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	5.7		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.58	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.0	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.33	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.65	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.14	J, CLP01	ng/kg dry	0.99	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.56	U	ng/kg dry	0.99	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	400	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	88	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	56	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	35	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1600		ng/kg dry	9.9	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	74		ng/kg dry	9.9	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	7.7	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	8.7	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	4.4	J, D-5	ng/kg dry	4.4	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	4.0	J, D-5	ng/kg dry	4.0	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	5.9	J, D-5	ng/kg dry	5.9	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.9	J, Q-3	ng/kg dry	0.99	2/24/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13889A2SF

Lab ID: C110907-52

MD No:

Station ID: 13889

Matrix: Surface Soil

D No: 69W8 CAPE

Date Collected: 2/15/11 14:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	3.8	J, Q-3	ng/kg dry	0.99	2/24/11	3/04/11	CL DLM02.0





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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13890A2SF

Lab ID: C110907-53

MD No:

Station ID: 13890

Matrix: Surface Soil

D No: 69W9 CAPE

Date Collected: 2/15/11 14:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	25		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	77		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	20		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.82	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	2.5	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.62	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	1.7	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.26	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.32	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.25	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.83	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.47	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.17	J, CLP01	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.66	U	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	190	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	50	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	26	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	760		ng/kg dry	9.8	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	39		ng/kg dry	9.8	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	4.1	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	5.8	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.5	J, D-5	ng/kg dry	2.5	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	1.9	J, D-5	ng/kg dry	1.9	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	2.7	J, D-5	ng/kg dry	2.7	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.4	J, Q-3	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13890A2SF

Lab ID: C110907-53

MD No:

Station ID: 13890

Matrix: Surface Soil

D No: 69W9 CAPE

Date Collected: 2/15/11 14:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	3.9	J, Q-3	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13894A2SF

Lab ID: C110907-54

MD No:

Station ID: 13894

Matrix: Surface Soil

D No: 69X0 CAPE

Date Collected: 2/15/11 13:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	19		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	74		ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	17		ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.0	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.95	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.4	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	2.6	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.68	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	2.0	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.36	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.40	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.17	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.44	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.12	J, CLP01	ng/kg dry	0.93	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.52	U	ng/kg dry	0.93	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	170	J, Q-3	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	42	J, Q-3	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	26	J, Q-3	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	21	J, Q-3	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	750		ng/kg dry	9.3	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	28		ng/kg dry	9.3	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	3.5	J, Q-3	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	6.1	J, Q-3	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.5	J, D-5	ng/kg dry	2.5	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.0	J, D-5	ng/kg dry	2.0	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	2.8	J, D-5	ng/kg dry	2.8	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.88	J, Q-3	ng/kg dry	0.93	2/24/11	3/04/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13894A2SF

Lab ID: C110907-54

MD No:

Station ID: 13894

Matrix: Surface Soil

D No: 69X0 CAPE

Date Collected: 2/15/11 13:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	3.0	J, Q-3	ng/kg dry	0.93	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13900A2SF

Lab ID: C110907-55

MD No:

Station ID: 13900

Matrix: Surface Soil

D No: 69X1 CAPE

Date Collected: 2/15/11 13:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	22		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	200		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	74		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.0	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.3	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	4.6	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	7.4	J, CLP33	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	3.1	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	5.1	J, CLP33	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.98	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.95	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.50	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	4.8	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	4.0	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.27	J, CLP01	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.96	U	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	490	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	150	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	82	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	96	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	2100		ng/kg dry	9.7	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	93		ng/kg dry	9.7	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	12	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	59	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	9.5	J, D-5	ng/kg dry	9.5	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	7.6	J, D-5	ng/kg dry	7.6	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13900A2SF

Lab ID: C110907-55

MD No:

Station ID: 13900

Matrix: Surface Soil

D No: 69X1 CAPE

Date Collected: 2/15/11 13:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	8.9	J, D-5	ng/kg dry	8.9	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.3	J, Q-3	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 29844A2SF

Lab ID: C110907-56

MD No:

Station ID: 29844

Matrix: Surface Soil

D No: 69X2 CAPE

Date Collected: 2/15/11 16:52

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	18		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	130		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	34		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.4	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	2.0	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	3.3	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	4.5	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.0	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.3	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.73	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.58	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.51	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	2.2	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.25	J, CLP01	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.83	U	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	330	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	91	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	51	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	41	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1400		ng/kg dry	9.7	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	70		ng/kg dry	9.7	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	7.5	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	23	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	4.8	J, D-5	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	4.1	J, D-5	ng/kg dry	4.1	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	5.2	J, D-5	ng/kg dry	5.2	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.1	J, Q-3	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 29844A2SF

Lab ID: C110907-56

MD No:

Station ID: 29844

Matrix: Surface Soil

D No: 69X2 CAPE

Date Collected: 2/15/11 16:52

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	9.6	J, Q-3	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0





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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KM1501A2SF

Lab ID: C110907-57

MD No:

Station ID: KM1501

Matrix: Surface Soil

D No: 69X3 CAPE

Date Collected: 2/15/11 8:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	23		%		2/28/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	110		ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	16		ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.97	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.77	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.7	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	2.5	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.73	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	1.8	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.26	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.37	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.21	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.89	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.41	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.13	U	ng/kg dry	0.95	2/28/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.54	U	ng/kg dry	0.95	2/28/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	320	J, Q-3	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	56	J, Q-3	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	26	J, Q-3	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	21	J, Q-3	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1500		ng/kg dry	9.5	2/28/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	53		ng/kg dry	9.5	2/28/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	2.8	J, Q-3	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	5.0	J, Q-3	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.5	J, D-5	ng/kg dry	2.5	2/28/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.0	J, D-5	ng/kg dry	2.0	2/28/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	3.2	J, D-5	ng/kg dry	3.2	2/28/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.19	J, Q-3	ng/kg dry	0.95	2/28/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KM1501A2SF

Lab ID: C110907-57

MD No:

Station ID: KM1501

Matrix: Surface Soil

D No: 69X3 CAPE

Date Collected: 2/15/11 8:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	1.7	J, Q-3	ng/kg dry	0.95	2/28/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMPPI5F

Lab ID: C110907-58

MD No:

Station ID: KMPPI1

Matrix: Surface Soil

D No: 69P5 CAPE

Date Collected: 2/15/11 17:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	9.8		%		2/21/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	50		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	9.9		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.54	J, CLP01	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.69	U	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	0.65	J, CLP01	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	1.6	U, CLP18	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.51	J, CLP01	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	1.6	J, CLP01	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.61	U	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.42	U	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.20	U, CLP18	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.45	U	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.30	U	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.27	U	ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.43	U	ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	130	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	28	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	20	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	10	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1300		ng/kg dry	9.9	2/21/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	18		ng/kg dry	9.9	2/21/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	3.0	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	1.3	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.2	J, D-5	ng/kg dry	2.2	2/21/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	1.8	J, D-5	ng/kg dry	1.8	2/21/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	2.4	J, D-5	ng/kg dry	2.4	2/21/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.7	J, Q-3	ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMPP1SF

Lab ID: C110907-58

MD No:

Station ID: KMPP1

Matrix: Surface Soil

D No: 69P5 CAPE

Date Collected: 2/15/11 17:00

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	0.66	J, Q-3	ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMWP01

Lab ID: C110907-59

MD No:

Station ID: KMWP01

Matrix: Surface Soil

D No: 69X4 CAPE

Date Collected: 2/16/11 9:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	7.5		%		2/28/11	3/08/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	28000		ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	6500		ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	680	J, QI-1	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	63	J, CLP01, CLP33, QI-1	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1400	J, CLP33, QI-1	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	770	J, CLP33, QI-1	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	270	J, CLP33, QI-1	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	130	J, QI-1, CLP01, CLP33	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	240		ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	16	U	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	47	J, CLP01	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	430	J, CLP33, QI-1	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	230	J, CLP01	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	4.0	U, J, QI-1	ng/kg dry	48	2/28/11	3/08/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	6.8	U, R, QI-1	ng/kg dry	48	2/28/11	3/08/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	140000	J, Q-3	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	30000	J, Q-3	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	7300	J, Q-3	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	15000	J, Q-3	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	240000	J, CLP02	ng/kg dry	480	2/28/11	3/08/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	16000		ng/kg dry	480	2/28/11	3/08/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	120	J, Q-3	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	1100	J, Q-3	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	650	J, D-5	ng/kg dry	650	2/28/11	3/08/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	540	J, D-5	ng/kg dry	540	2/28/11	3/08/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	850	J, D-5	ng/kg dry	850	2/28/11	3/08/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMWP01

Lab ID: C110907-59

MD No:

Station ID: KMWP01

Matrix: Surface Soil

D No: 69X4 CAPE

Date Collected: 2/16/11 9:00

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
41903-57-5	Tetrachlorodibenzodioxin (Total)	4.0	U, J, Q-3	ng/kg dry	48	2/28/11	3/08/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	7.6	J, Q-3	ng/kg dry	48	2/28/11	3/08/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMWP02

Lab ID: C110907-60

MD No:

Station ID: KMWP01

Matrix: Surface Soil

D No: 69X5 CAPE

Date Collected: 2/17/11 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	9.8		%		2/28/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	36		ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	13		ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.66	J, CLP01	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.57	U	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	0.90	U, CLP18	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.54	J, CLP01	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	0.73	J, CLP01	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.30	U	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.27	U	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.32	U	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.57	J, CLP01	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.60	J, CLP01	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.16	U	ng/kg dry	0.98	2/28/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.49	U	ng/kg dry	0.98	2/28/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	120	J, Q-3	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	30	J, Q-3	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	12	J, Q-3	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	14	J, Q-3	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	540		ng/kg dry	9.8	2/28/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	16		ng/kg dry	9.8	2/28/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	2.1	J, Q-3	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	5.4	J, Q-3	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.2	J, D-5	ng/kg dry	2.2	2/28/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	1.6	J, D-5	ng/kg dry	1.6	2/28/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	1.8	J, D-5	ng/kg dry	1.8	2/28/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.45	J, Q-3	ng/kg dry	0.98	2/28/11	3/04/11	CL DLM02.0



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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMWP02

Lab ID: C110907-60

MD No:

Station ID: KMWP01

Matrix: Surface Soil

D No: 69X5 CAPE

Date Collected: 2/17/11 12:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	2.3	J, Q-3	ng/kg dry	0.98	2/28/11	3/04/11	CL DLM02.0





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## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12624A2SB12

Lab ID: C110907-61

MD No:

Station ID: TN09

Matrix: Subsurface Soil

D No: 69R9 CAPE

Date Collected: 2/14/11 16:04

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	480		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	86		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	8.2		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.5	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	11		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	10		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.8	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.0	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.33	U, CLP18	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.80	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	4.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	2.7	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.11	U	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.51	U	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1300	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	380	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	72	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	130	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	7200	J, CLP02	ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	340		ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	4.4	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	21	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	8.5	J, D-5	ng/kg dry	8.5	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	7.0	J, D-5	ng/kg dry	7.0	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	13	J, D-5	ng/kg dry	13	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.46	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 4 Science and Ecosystem Support Division  
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

## Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12624A2SB12

Lab ID: C110907-61

MD No:

Station ID: TN09

Matrix: Subsurface Soil

D No: 69R9 CAPE

Date Collected: 2/14/11 16:04

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	5.7	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0

\*\*\*END OF REPORT\*\*\*