Chain of Custody and Supporting Documentation

225106

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090224_00

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104				
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
EBQW2204	Water	2/24/2009	15:15	3			10	10	10						10	10	10			
FBQW2229	Water	2/24/2009	15:00	3			10	10	10						10	10	10			Batch # 010709007WF173
HZBS0062S001	Soil	2/24/2009	11:01	1	10								10							
HZBS0063S001	Soil	2/24/2009	11:48	1	10								10							
HZBS0064S001	Soil	2/24/2009	10:28	2	10	H							10							
HZBS0065S001	Soil	2/24/2009	11:39	1	10								10							MS/MSD
HZBS0067D001	Soil	2/24/2009	0:00	1	10	10														
HZBS0067S001	Soil	2/24/2009	8:20	1	10	10														
HZBS0070S001	Soil	2/24/2009	14:45	2	10	10					10		10	10						
HZBS0073S001	Soil	2/24/2009	8:47	2	10	10							10							MS/MSD

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/24/09		2/25/09				
Company: MWH	Time: 1615	Company: GEL	Time: 0840	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

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225106

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090224_00

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104				
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

	Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
✓	HZBS0079S001	Soil	2/24/2009	9:21	2	H	10							H							
✓	HZBS0086S001	Soil	2/24/2009	13:50	1	10					10	10	10	10							
✓	HZBS0087S001	Soil	2/24/2009	13:18	1	10					10	10	10	10							
✓	HZBS0088D001	Soil	2/24/2009	0:00	1	10					10	10	10	10	10						
✓	HZBS0088S001	Soil	2/24/2009	13:59	1	10					10	10	10	10	10						
✓	HZBS0089S001	Soil	2/24/2009	10:51	2	10	10							10							
✓	HZBS0090S001	Soil	2/24/2009	10:09	2	10	10							10	10						
✓	HZBS0091S001	Soil	2/24/2009	11:13	1	10								10							
✓	HZBS0093S001	Soil	2/24/2009	13:33	1	10					10	10	10	10							
✓	HZBS0094S001	Soil	2/24/2009	12:58	2	10					10	10	10	10							MS/MSD

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/24/09		2/25/09				
Company: MWH	Time: 1615	Company: GEL	Time: 0840	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

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225106%

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090224_00

Page: 3 of 3

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104	Requested Analyses		Instructions/TAT	
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7386				

Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
HZBS0095S001	Soil	2/24/2009	13:40	1	10					10	10	10	10							

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/24/09		2/25/09				
Company: MWH	Time: 1605	Company: GEL	Time: 0840	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SSFL	**SDG/ARCOC/Work Order:** 225106
Received By: Ricky Albee	**Date Received:** 2/25/09

Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		✓	Maximum Counts Observed*: 60 cpm
Classified Radioactive II or III by RSO?		✓	
COC/Samples marked containing PCBs?		✓	
Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		✓	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	✓			Preservation Method: (ice bags) blue ice dry ice none other (describe) 3°C, 4°C
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	✓			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Are Encore containers present?			✓	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	✓			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?			✓	Sample ID's and containers affected: See comments
10	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
11	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	✓			

Comments: FedEx 9457 3158 4163-3°C
9457 3158 4174-4°C
* Did not receive HZBS0090S001SP (page 3 of coc)
Received HZBS0095S001, not on coc. 1 container, collected 2/24/09 @ 1340

PM (or PMA) review: Initials VT Date 2/25/09

Requesting Firm: MWH
Address: 2121 No. California Blvd.
Walnut Creek, CA 94596
Phone: 925-627-4654
Fax: 925-627-4501
E-mail:Sarah.VonRaesfeld@mwhglobal.com

Date: 02/26/09

To: Cheryl Jones **Phone:** 843-769-7388

Laboratory GEL Laboratories, LLC **E-mail:** cj@gel.com

From: Sarah Von Raesfeld

Requestor signature:

Subject: **Chain-of-Custody Form Analytical Request Change** **No. of Pages:** 4

Per Request:
Please make the changes listed below to the chain-of-custody analytical request form. Include this form with the final deliverables for these samples.

COC No.	Client Sample ID(s)	Date Collected	Originally Requested Analyses	Change (s) and Method (s) Now Requested
MWHAL20090224_00	HZBS0094S001	02/24/09		Hold all analyses.

The reason for these changes:

Incorrectly marked on COC form	
Lack of sample volume	
Change in analytical request	X
Other:	

Thank you

BOEING

CHAIN OF CUSTODY RECORD

225106

COC #: MWHAL20090224_00

Page: 1 of 3

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104				
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
EBQW2204	Water	2/24/2009	15:15	3			10	10	10						10	10	10			
FBQW2229	Water	2/24/2009	15:00	3			10	10	10						10	10	10			Batch # 010709007WF173
HZBS0062S001	Soil	2/24/2009	11:01	1	10								10							
HZBS0063S001	Soil	2/24/2009	11:48	1	10								10							
HZBS0064S001	Soil	2/24/2009	10:28	2	10	H							10							
HZBS0065S001	Soil	2/24/2009	11:39	1	10								10							MS/MSD
HZBS0067D001	Soil	2/24/2009	0:00	1	10	10														
HZBS0067S001	Soil	2/24/2009	8:20	1	10	10														
HZBS0070S001	Soil	2/24/2009	14:45	2	10	10					10		10	10						
HZBS0073S001	Soil	2/24/2009	8:47	2	10	10							10							MS/MSD

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/24/09		2/25/09				
Company: MWH	Time: 1615	Company: GEL	Time: 0840	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

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225106

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090224_00

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104				
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

	Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
						Requested Analyses															Instructions/TAT
✓	HZBS0079S001	Soil	2/24/2009	9:21	2	H	10							H							Legend: Numerical values for analyses equate to turn around time in days H - Hold EH - Extract/Extrude & Hold Note: Values in the cells bellow are Turn Around Times.
✓	HZBS0086S001	Soil	2/24/2009	13:50	1	10					10	10	10	10							
✓	HZBS0087S001	Soil	2/24/2009	13:18	1	10					10	10	10	10							
✓	HZBS0088D001	Soil	2/24/2009	0:00	1	10					10	10	10	10	10						
✓	HZBS0088S001	Soil	2/24/2009	13:59	1	10					10	10	10	10	10						
✓	HZBS0089S001	Soil	2/24/2009	10:51	2	10	10							10							
✓	HZBS0090S001	Soil	2/24/2009	10:09	2	10	10							10	10						
✓	HZBS0091S001	Soil	2/24/2009	11:13	1	10								10							
✓	HZBS0093S001	Soil	2/24/2009	13:33	1	10					10	10	10	10							
✓	HZBS0094S001	Soil	2/24/2009	12:58	2	① H					H	H	H	H							MS/MSD

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/24/09		2/25/09				
Company: MWH	Time: 1615	Company: GEL	Time: 0840	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

① SVR 02/26/09

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CHAIN OF CUSTODY RECORD

COC #: MWHAL20090224_00

Page: 3 of 3

Customer Information		Project Information		Project Information	
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:	
Report to:	Sarah Von Raesfeld	Project Number:	189161A.050104	Boeing PM:	
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl		
	Suite 800	PM Phone #:	(925) 627-4627		
	Walnut Creek	Field Contact:	Brian Mariasin		
	CA	Field Contact #:	(323) 304-4969		
	94596	Lab Name:	GEL Laboratories, LLC		
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones		
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road		
			Charleston, SC 29407		
		Lab Phone:	(843) 769-7366		

Sample Name	Matrix	Date	Time	No. of Containers	Requested Analyses: 02218 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
H2BS0085001	Soil	2/24/2009	13:40	1	10					10	10	10	10							

Instructions/TAT

Legend:
Numerical values for analyses equals turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells below are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/24/09		2/25/09				
Company: MWH	Time: 1605	Company: GEL	Time: 0840	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

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LABORATORY TASK ORDER (LTO) FORM

INSTRUCTIONS: To be completed by Environmental Contractor & Emailed to Laboratory Project Manager, CH2M HILL (boeingedms@ch2m.com) & the Data Validator at Least 48 hrs prior to need for sample containers. Project Analytical Laboratory will confirm receipt via E-Mail.

Event Name: ISRA Sampling, Feb 2009 **Start:** 2/19/2009 **End:** 2/23/2009

LTO DATE: **LTO NUMBER:**

Consultant Name:	MWH	**Contract Laboratory:**	GEL
Address:	2121 N. California Blvd. Ste. 600	Address:	2040 Savage Rd.
	Walnut Creek, CA 94596		Charleston, SC 29407
Contact Name:	Sarah Von Raesfeld	**Lab Contact Name:**	Cheryl Jones
Phone Number:	925-627-4654	Phone Number:	843-769-7388
Fax Number:	925-627-4501	Fax Number:	843-766-1178
E-mail Address:	Sarah.VonRaesfeld@mwhglobal.com	E-mail Address:	cj@gel.com

SAMPLE CONTAINER ORDER FORM

Date Required: 02/19/09

Date Sample Pickup: NA

Ship Containers To:

Project Site	X	*(enter "X")*
Consultant Office		*(enter "X")*
Other Location (specify in comments)		*(enter "X")*

Container Information:

Trip Blank (VOA only)	Yes	*(Yes/No)*
Temp Blank (VOA Only)	No	*(Yes/No)*
DI Water Required?	No	*(Yes/No)*
MS/MSD Extra Bottles?	No	*(Yes/No)*

Sample Matrix:

Soil	X	*(select all applicable)*
Water	X	*(select all applicable)*
Vapor		*(select all applicable)*

Est. Total # of Samples: 75 Est. Total # of EDDs 5

Requested Analyses: (Specify # of Samples)

	Water	Soil	Contingent
Dioxins - (1613B)	**5**	**9**	**14**
EPA 8015M (DRO)	--	--	--
EPA 8015M (JET FUEL)	--	--	--
EPA 8015M (CC)	--	--	--
EPA 8260B (VOC)	--	--	--
EPA 8270C SIM (SVOC)	--	--	--
EPA 8310 (PAH)	--	--	--
EPA 8082 (PCB)	--	--	--
Acetone (8260B)	--	--	--
EPA TO-15 VOCs (SIM)	--	--	--
Metals (6010B/6020/7470A/7471A)	--	--	--
Cadmium (6020)	**5**	**15**	**10**
Arsenic (6020)	**5**	**5**	**5**
% Moisture (D2216)	**0**	**40**	**30**
Lead (6020)	**5**	**40**	**30**
Copper (6020)	**5**	**10**	**5**
Zinc (6020)	**5**	**10**	**5**
EPA TO-14 (VOCs)	--	--	--

LABORATORY REPORTING REQUIREMENTS

Project TAT:

Normal:	X	(10 Business days)
RUSH:		(Specify- 24 / 48 / 72HRS)
Other :		(Specify # of Days)
Report Due Date:		

Special Reporting Requirements:

Contingent Analysis?	No	*(Yes/No)*
TIC (VOC) Required?	No	*(Yes/No)*
TIC (SVOC) Required?	No	*(Yes/No)*
Data Validation Pckge.:	Tier III	(Boeing Tier I, II or III)

Laboratory Results/Reports Deliverables:

Draft Results Fax?:		(Yes/No)
Draft Results E-mail?:	Yes	(Yes/No)

Specify Fax/E-mail Contact Name, #, E-mail Address: Sarah.VonRaesfeld@mwhglobal.com

Send Original Reports To:

Project Site		*(enter "X")*
Consultant Office		*(enter "X")*
Other Location (specify in comments)	X	*(enter "X")*
# of Copies Reports Req.:	1	

SPECIAL INSTRUCTIONS/LTO NOTES

CONFIRMATION OF TRANSMITTAL & RECEIPT

LTO Sent By:

Name: Sean Leffler

Date: 02/20/09

LTO Received By-

Name:

Date:

LABORATORY TASK ORDER (LTO) FORM (PAGE 2)

ADDITIONAL REQUIRED ANALYSES

LTO DATE: | **LTO NUMBER:**

Consultant Name:	MWH	**Contract Laboratory:**	GEL
Address:	2121 N. California Blvd. Ste. 600	Address:	2040 Savage Rd.
	Walnut Creek, CA 94596		Charleston, SC 29407
Contact Name:	Sarah Von Raesfeld	**Lab Contact Name:**	Cheryl Jones
Phone Number:	925-627-4654	Phone Number:	843-769-7388
Fax Number:	925-627-4501	Fax Number:	843-766-1178
E-mail Address:	Sarah.VonRaesfeld@mwhglobal.com	E-mail Address:	cj@gel.com

SAMPLE CONTAINER ORDER FORM (CONTINUED)

Requested Analyses: **(Specify # of Samples)**

	Water	Soil	Contingent
Arsenic (6020)	--	--	--
Lead (6020)	--	--	--
Cadmium (6020)	--	--	--
Lithium (6020)	--	--	--
Sodium (6020)	--	--	--
Selenium (6020)	--	--	--
Thallium (6020)	--	--	--
Zinc (6020)	--	--	--
Boron (6010B	--	--	--
Vanadium (6010B)	--	--	--
Copper (6020)	--	--	--
Zirconium (6020)	--	--	--

Table of Contents

Case Narrative

Case Narrative
for
Boeing - Santa Susanna Field Laboratory
Work Order: 225106
SDG: 225106

March 10, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample Receipt

The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 25, 2009 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

The laboratory received the following samples:

Laboratory Identification	Sample Description
225106001	EBQW2204
225106002	FBQW2229
225106003	HZBS0062S001
225106004	HZBS0063S001
225106005	HZBS0064S001
225106006	HZBS0065S001
225106007	HZBS0067D001
225106008	HZBS0067S001
225106009	HZBS0070S001
225106010	HZBS0073S001
225106011	HZBS0079S001
225106012	HZBS0086S001
225106013	HZBS0087S001
225106014	HZBS0088D001
225106015	HZBS0088S001
225106016	HZBS0089S001
225106017	HZBS0090S001
225106018	HZBS0091S001
225106019	HZBS0093S001
225106020	HZBS0094S001
225106021	HZBS0095S001

Items of Note

Santa Susanna Field Laboratory Technical Representative was contacted seeking resolution to any analytical and/or receipt issues. Please see the enclosed e-mails.

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Metals, Percent Moisture and Dioxins (SGS Laboratories).

I certify that this data package is in compliance with the terms and conditions of the subcontract and task order, both technically and for the completeness, for other than the conditions detailed in the attached case narratives.

Cheryl Jones

Project Manager

Data Qualifiers Definitions

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Laboratory Certifications

List of current GEL Certifications as of 10 March 2009

State	Certification
Arizona	AZ0668
Arkansas	88−0651
CLIA	42D0904046
California − NELAP	01151CA
Colorado	GEL
Connecticut	PH−0169
Dept. of Navy	NFESC 413
EPA Region 5	WG−15J
Florida − NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois − NELAP	200029
Indiana	C−SC−01
Kansas − NELAP	E−10332
Kentucky	90129
Louisiana − NELAP	03046
Maryland	270
Massachusetts	M−SC012
Nevada	SC00012
New Jersey − NELAP	SC002
New Mexico	FL NELAP E87156
New York − NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania − NELAP	68−00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas − NELAP	T104704235−07B−TX
U.S. Dept. of Agriculture	S−52597
Utah − NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

DATA VALIDATION REPORT

Boeing SSFL RFI ISRA

SAMPLE DELIVERY GROUP: 225106

Prepared by

MEC^X, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title:	Boeing SSFL RFI ISRA
Contract Task Order:	1261.500D.00
Sample Delivery Group:	225106
Project Manager:	Dixie Hambrick
Matrix:	water/soil
QC Level:	V
No. of Samples:	20
No. of Reanalyses/Dilutions:	0
Laboratory:	GEL

Table 1. Sample Identification

Sample Name	*Lab Sample Name*	*Sub-Lab Sample Name*	*Matrix*	*Collection*	*Method*
EBQW2204	225106001	G341-567-1D	Water	2/24/2009 3:15:00 PM	1613B, 6020
FBQW2229	225106002	G341-567-2C	Water	2/24/2009 3:00:00 PM	1613B, 6020
HZBS0062S001	225106003	N/A	Soil	2/24/2009 11:01:00 AM	6020
HZBS0063S001	225106004	N/A	Soil	2/24/2009 11:48:00 AM	6020
HZBS0064S001	225106005	N/A	Soil	2/24/2009 10:28:00 AM	6020
HZBS0065S001	225106006	N/A	Soil	2/24/2009 11:39:00 AM	6020
HZBS0070S001	225106009	G341-567-6B	Soil	2/24/2009 2:45:00 PM	1613B, 6020
HZBS0073S001	225106010	G341-567-7B	Soil	2/24/2009 8:47:00 AM	1613B, 6020
HZBS0086S001	225106012	N/A	Soil	2/24/2009 1:50:00 PM	6020
HZBS0087S001	225106013	N/A	Soil	2/24/2009 1:18:00 PM	6020
HZBS0088D001	225106014	N/A	Soil	2/24/2009	6020
HZBS0088S001	225106015	N/A	Soil	2/24/2009 1:59:00 PM	6020
HZBS0089S001	225106016	G341-567-11B	Soil	2/24/2009 10:51:00 AM	1613B, 6020
HZBS0090S001	225106017	G341-567-12B	Soil	2/24/2009 10:09:00 AM	1613B, 6020
HZBS0091S001	225106018	N/A	Soil	2/24/2009 11:13:00 AM	6020
HZBS0093S001	225106019	N/A	Soil	2/24/2009 1:33:00 PM	6020
HZBS0095S001	225106021	N/A	Soil	2/24/2009 1:40:00 PM	6020
HZBS0079S001	225106011	G341-567-10B	Soil	2/24/2009 9:21:00 AM	1613B
HZBS0067D001	225106007	G341-567-4B	Soil	2/24/2009	1613B
HZBS0067S001	225106008	G341-567-5B	Soil	2/24/2009 8:20:00 AM	1613B

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
T-I	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. The tentative identification represents a compound with a CAS number and fit greater than 80%.	Not applicable

T-II	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. The tentative identification represents a class of compound but not of sufficient identification quality to represent a specific compound.	Not applicable
T-III	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. The tentative identification represents an unknown compound.	Not applicable
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight
Date Reviewed: March 19, 2009

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review* (10/99).

- Holding Times: Extraction and analytical holding times were met. The samples were extracted and analyzed within one year of collection.

- Instrument Performance: Review is not applicable at a Level V validation.

- Calibration: Review is not applicable at a Level V validation.

- Blanks: Method blanks had no target compound detects above the EDL.

- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs for the OPR/OPRD pairs were within the acceptance criteria listed in Table 6 of Method 1613.

- Matrix Spike/Matrix Spike Duplicate Samples: MS/MSD analyses was performed for sample HZBS0073S001. Recoveries and RPDs were within the laboratory-established QC limits.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: Sample FBQW2229 was the field blank and EBQW2204 was the equipment rinsate sample identified for this SDG. There were no detects above the EDL in the field QC samples.

    - Field Duplicates: Samples HZBS0067S001 and HZBS0067D001 were the field duplicate samples identified for this SDG. There were common detects for HpCDD, OCDD, 1,2,3,4,6,7,8-HpCDF, total HpCDD, total TCDF, total PeCDF, total HxCDF, and total HpCDF with calculated RPDs ≤100%. OCDF, 1,2,3,6,7,8-HxCDD, total PeCDD, and total HxCDD were reported above the EDL in HZBS0067D001 only. Overall, the pair was considered to be in good agreement.

- Internal Standards Performance: Internal standard recoveries are not routinely evaluated at a Level V validation; however, the recoveries were reported on the sample result

summaries. The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.

- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613. A confirmation analysis was not performed for the 2,3,7,8-TCDF detect reported in sample HZBS0070S001; therefore, the result for 2,3,7,8-TCDF was qualified as estimated, "J."

- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. The laboratory calculated and reported compound-specific detection limits. Quantitative interference, as denoted by a laboratory "Q" code, was present in the result for total PeCDD reported in sample HZBS0089S001; therefore, the result was qualified as estimated, "J." Any detect between the EDL and the reporting limit (RL) was qualified as estimated, "J." Any estimated maximum possible concentration (EMPC) was qualified as estimated, "UJ," in the samples of this SDG. Nondetects are valid to the estimated detection limit (EDL).

B. EPA METHOD 6020—Metals

Reviewed By: P. Meeks
Date Reviewed: March 19, 2009

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Method 6020,* and the *National Functional Guidelines for Inorganic Data Review* (7/02).

- Holding Times: The analytical holding time, six months for ICP-MS metals, was met.

- Tuning: Review is not applicable at a Level V validation.

- Calibration: Review is not applicable at a Level V validation.

- Blanks: Method blanks and CCBs had no detects.

- Interference Check Samples: Review is not applicable at a Level V validation.

- Blank Spikes and Laboratory Control Samples: Recoveries and the aqueous RPDs were within laboratory-established QC limits.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on HZBS0065S001 and HZBS0073S001. For the duplicate analysis of HZBS0073S001, the copper RPD exceeded the control limit; therefore, copper detected in the soil samples was qualified as estimated, "J." All remaining RPDs were within the laboratory-established control limits.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on HZBS0065S001 and HZBS0073S001. Recoveries and RPDs were within laboratory-established QC limits.

- Serial Dilution: Serial dilution analyses were performed on HZBS0065S001 and HZBS0073S001. For the serial dilution analysis of HZBS0065S001, the copper %D exceeded the control limit; therefore, copper detected in the soil samples was qualified as estimated, "J." All remaining %Ds were within the method-established control limits.

- Internal Standards Performance: Review is not applicable at a Level V validation.

- Sample Result Verification: Review is not applicable at a Level V validation. As the samples in this SDG were validated at Level V, the QC information necessary to make an absolute determination of bias in the samples was not reviewed; therefore, when qualifications were applied, no bias was assigned. Lead and/or zinc in most soil samples were reported from 10× dilutions in order to report the analytes within the linear range of the calibrations. The remaining soil analytes were reported form the laboratory's standard 2× dilution for soils. Any result reported between the MDL and the reporting limit was qualified as estimated, "J." Reported nondetects are valid to the MDL.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: FBQW2229 was the field blank and EBQW2204 was the equipment rinsate associated with the soil samples in this SDG. There were no applicable detects in either sample.

    - Field Duplicates: Samples HZBS0088S001 and HZBS0088D001 were identified as field duplicate samples. All detects were in common and all RPDs were less than 100%.

Validated Sample Result Forms: 225106

Analysis Method 1613B

Sample Name EBQW2204 **Matrix Type:** Water **Result Type:** Primary Result

Lab Sample Name: G341-567-1D **Sample Date:** 2/24/2009 3:15:00 PM **Validation Level:** V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	0.0101	0.0474	0.0101	NG/L	U	U	
1,2,3,4,6,7,8-HpCDF	67562394	0.00522	0.0474	0.00522	NG/L	U	U	
1,2,3,4,7,8,9-HpCDF	55673897	0.00781	0.0474	0.00781	NG/L	U	U	
1,2,3,4,7,8-HxCDD	39227286	0.00509	0.0474	0.00509	NG/L	U	U	
1,2,3,4,7,8-HxCDF	70648269	0.00346	0.0474	0.00346	NG/L	U	U	
1,2,3,6,7,8-HxCDD	57653857	0.00492	0.0474	0.00492	NG/L	U	U	
1,2,3,6,7,8-HxCDF	57117449	0.00331	0.0474	0.00331	NG/L	U	U	
1,2,3,7,8,9-HxCDD	19408743	0.00504	0.0474	0.00504	NG/L	U	U	
1,2,3,7,8,9-HxCDF	72918219	0.00448	0.0474	0.00448	NG/L	U	U	
1,2,3,7,8-PeCDD	40321764	0.00339	0.0474	0.00339	NG/L	U	U	
1,2,3,7,8-PeCDF	57117416	0.00177	0.0474	0.00177	NG/L	U	U	
2,3,4,6,7,8-HxCDF	60851345	0.00355	0.0474	0.00355	NG/L	U	U	
2,3,4,7,8-PeCDF	57117314	0.00187	0.0474	0.00187	NG/L	U	U	
2,3,7,8-TCDD	1746016	0.00214	0.00948	0.00214	NG/L	U	U	
2,3,7,8-TCDF	51207319	0.00288	0.00948	0.00288	NG/L	U	U	
OCDD	3268879	0.0191	0.0948	0.0191	NG/L	U	U	
OCDF	39001020	0.0157	0.0948	0.0157	NG/L	U	U	
Total HpCDDs	37871004	0.0101	0.0474	0.0101	NG/L	U	U	
Total HpCDFs	38998753	0.00638	0.0474	0.00638	NG/L	U	U	
Total HxCDDs	34465468	0.00501	0.0474	0.00501	NG/L	U	U	
Total HxCDFs	55684941	0.00366	0.0474	0.00366	NG/L	U	U	
Total PeCDDs	36088229	0.00339	0.0474	0.00339	NG/L	U	U	
Total PeCDFs	30402154	0.00208	0.0474	0.00208	NG/L	U	U	
Total TCDDs	41903575	0.00214	0.00948	0.00214	NG/L	U	U	
Total TCDFs	30402143	0.00288	0.00948	0.00288	NG/L	U	U	

Sample Name	FBQW2229	Matrix Type:	Water	Result Type:	Primary Result
Lab Sample Name:	G341-567-2C	Sample Date:	2/24/2009 3:00:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	0.00698	0.0475	0.00698	NG/L	U	U	
1,2,3,4,6,7,8-HpCDF	67562394	0.00428	0.0475	0.00428	NG/L	U	U	
1,2,3,4,7,8,9-HpCDF	55673897	0.00645	0.0475	0.00645	NG/L	U	U	
1,2,3,4,7,8-HxCDD	39227286	0.00434	0.0475	0.00434	NG/L	U	U	
1,2,3,4,7,8-HxCDF	70648269	0.00213	0.0475	0.00213	NG/L	U	U	
1,2,3,6,7,8-HxCDD	57653857	0.00406	0.0475	0.00406	NG/L	U	U	
1,2,3,6,7,8-HxCDF	57117449	0.00212	0.0475	0.00212	NG/L	U	U	
1,2,3,7,8,9-HxCDD	19408743	0.00422	0.0475	0.00422	NG/L	U	U	
1,2,3,7,8,9-HxCDF	72918219	0.00291	0.0475	0.00291	NG/L	U	U	
1,2,3,7,8-PeCDD	40321764	0.00323	0.0475	0.00323	NG/L	U	U	
1,2,3,7,8-PeCDF	57117416	0.00179	0.0475	0.00179	NG/L	U	U	
2,3,4,6,7,8-HxCDF	60851345	0.00229	0.0475	0.00229	NG/L	U	U	
2,3,4,7,8-PeCDF	57117314	0.00179	0.0475	0.00179	NG/L	U	U	
2,3,7,8-TCDD	1746016	0.00185	0.0095	0.00185	NG/L	U	U	
2,3,7,8-TCDF	51207319	0.00285	0.0095	0.00285	NG/L	U	U	
OCDD	3268879	0.0158	0.095	0.0158	NG/L	U	U	
OCDF	39001020	0.0154	0.095	0.0154	NG/L	U	U	
Total HpCDDs	37871004	0.00698	0.0475	0.00698	NG/L	U	U	
Total HpCDFs	38998753	0.00524	0.0475	0.00524	NG/L	U	U	
Total HxCDDs	34465468	0.00421	0.0475	0.00421	NG/L	U	U	
Total HxCDFs	55684941	0.00234	0.0475	0.00234	NG/L	U	U	
Total PeCDDs	36088229	0.00323	0.0475	0.00323	NG/L	U	U	
Total PeCDFs	30402154	0.00175	0.0475	0.00175	NG/L	U	U	
Total TCDDs	41903575	0.00185	0.0095	0.00185	NG/L	U	U	
Total TCDFs	30402143	0.00285	0.0095	0.00285	NG/L	U	U	

Sample Name	HZBS0067D001	Matrix Type:	Soil	Result Type:	Primary Result
Lab Sample Name:	G341-567-4B	Sample Date:	2/24/2009	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	7.41	4.52	0.661	PG/G			
1,2,3,4,6,7,8-HpCDF	67562394	1.4	4.52	0.373	PG/G	A	J	
1,2,3,4,7,8,9-HpCDF	55673897	0.515	4.52	0.515	PG/G	U	U	
1,2,3,4,7,8-HxCDD	39227286	0.433	4.52	0.433	PG/G	U	U	
1,2,3,4,7,8-HxCDF	70648269	0.3	4.52	0.3	PG/G	U	U	
1,2,3,6,7,8-HxCDD	57653857	0.46	4.52	0.439	PG/G	A	J	
1,2,3,6,7,8-HxCDF	57117449	0.295	4.52	0.295	PG/G	U	U	
1,2,3,7,8,9-HxCDD	19408743	0.439	4.52	0.439	PG/G	U	U	
1,2,3,7,8,9-HxCDF	72918219	0.389	4.52	0.389	PG/G	U	U	
1,2,3,7,8-PeCDD	40321764	0.291	4.52	0.291	PG/G	U	U	
1,2,3,7,8-PeCDF	57117416	0.196	4.52	0.196	PG/G	U	U	
2,3,4,6,7,8-HxCDF	60851345	0.293	4.52	0.293	PG/G	U	U	
2,3,4,7,8-PeCDF	57117314	0.277	4.52	0.277	PG/G	EMPC	UJ	*III
2,3,7,8-TCDD	1746016	0.235	0.905	0.235	PG/G	U	U	
2,3,7,8-TCDF	51207319	0.323	0.905	0.323	PG/G	U	U	
OCDD	3268879	72.6	9.05	1.23	PG/G			
OCDF	39001020	3.39	9.05	1.26	PG/G	A	J	
Total HpCDDs	37871004	28.2	4.52	0.661	PG/G			
Total HpCDFs	38998753	3.25	4.52	0.437	PG/G	A	J	
Total HxCDDs	34465468	2.92	4.52	0.437	PG/G	A	J	
Total HxCDFs	55684941	2.25	4.52	0.316	PG/G	A	J	
Total PeCDDs	36088229	0.427	4.52	0.291	PG/G	A	J	
Total PeCDFs	30402154	2.27	4.52	0.205	PG/G	A	J	
Total TCDDs	41903575	0.235	0.905	0.235	PG/G	U	U	
Total TCDFs	30402143	0.845	0.905	0.323	PG/G	A	J	

Sample Name	HZBS0067S001	Matrix Type:	Soil	Result Type:	Primary Result
Lab Sample Name:	G341-567-5B	Sample Date:	2/24/2009 8:20:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	7.07	4.24	1.6	PG/G			
1,2,3,4,6,7,8-HpCDF	67562394	1.42	4.24	1.01	PG/G	A	J	
1,2,3,4,7,8,9-HpCDF	55673897	1.57	4.24	1.57	PG/G	U	U	
1,2,3,4,7,8-HxCDD	39227286	1.36	4.24	1.36	PG/G	U	U	
1,2,3,4,7,8-HxCDF	70648269	0.889	4.24	0.889	PG/G	U	U	
1,2,3,6,7,8-HxCDD	57653857	1.35	4.24	1.35	PG/G	U	U	
1,2,3,6,7,8-HxCDF	57117449	0.807	4.24	0.807	PG/G	U	U	
1,2,3,7,8,9-HxCDD	19408743	1.36	4.24	1.36	PG/G	U	U	
1,2,3,7,8,9-HxCDF	72918219	1.09	4.24	1.09	PG/G	U	U	
1,2,3,7,8-PeCDD	40321764	0.948	4.24	0.948	PG/G	U	U	
1,2,3,7,8-PeCDF	57117416	0.532	4.24	0.532	PG/G	U	U	
2,3,4,6,7,8-HxCDF	60851345	0.845	4.24	0.845	PG/G	U	U	
2,3,4,7,8-PeCDF	57117314	0.536	4.24	0.536	PG/G	U	U	
2,3,7,8-TCDD	1746016	0.21	0.848	0.21	PG/G	U	U	
2,3,7,8-TCDF	51207319	0.34	0.848	0.34	PG/G	U	U	
OCDD	3268879	64.6	8.48	3.29	PG/G			
OCDF	39001020	3.64	8.48	3.64	PG/G	U	U	
Total HpCDDs	37871004	26.9	4.24	1.6	PG/G			
Total HpCDFs	38998753	3.21	4.24	1.25	PG/G	A	J	
Total HxCDDs	34465468	1.36	4.24	1.36	PG/G	U	U	
Total HxCDFs	55684941	1.03	4.24	0.9	PG/G	A	J	
Total PeCDDs	36088229	0.948	4.24	0.948	PG/G	U	U	
Total PeCDFs	30402154	1.66	4.24	0.534	PG/G	A	J	
Total TCDDs	41903575	0.21	0.848	0.21	PG/G	U	U	
Total TCDFs	30402143	0.877	0.848	0.34	PG/G			

Sample Name	HZBS0070S001	**Matrix Type:**	Soil			**Result Type:**	Primary Result	
Lab Sample Name:	G341-567-6B	**Sample Date:**	2/24/2009 2:45:00 PM			**Validation Level:**	V	
Analyte	**CAS No**	**Result Value**	**RL**	**MDL**	**Result Units**	**Lab Qualifier**	**Validation Qualifier**	**Validation Notes**
1,2,3,4,6,7,8-HpCDD	35822469	70	4.59	0.968	PG/G			
1,2,3,4,6,7,8-HpCDF	67562394	8.02	4.59	0.468	PG/G			
1,2,3,4,7,8,9-HpCDF	55673897	0.68	4.59	0.68	PG/G	U	U	
1,2,3,4,7,8-HxCDD	39227286	0.624	4.59	0.43	PG/G	A	J	
1,2,3,4,7,8-HxCDF	70648269	0.743	4.59	0.376	PG/G	A	J	
1,2,3,6,7,8-HxCDD	57653857	2.07	4.59	0.412	PG/G	A	J	
1,2,3,6,7,8-HxCDF	57117449	0.598	4.59	0.345	PG/G	A	J	
1,2,3,7,8,9-HxCDD	19408743	1.83	4.59	0.422	PG/G	A	J	
1,2,3,7,8,9-HxCDF	72918219	0.512	4.59	0.512	PG/G	EMPC	UJ	*III
1,2,3,7,8-PeCDD	40321764	0.355	4.59	0.355	PG/G	U	U	
1,2,3,7,8-PeCDF	57117416	0.341	4.59	0.23	PG/G	A	J	
2,3,4,6,7,8-HxCDF	60851345	0.506	4.59	0.355	PG/G	A	J	
2,3,4,7,8-PeCDF	57117314	0.607	4.59	0.215	PG/G	A	J	
2,3,7,8-TCDD	1746016	0.239	0.917	0.239	PG/G	U	U	
2,3,7,8-TCDF	51207319	0.391	0.917	0.313	PG/G	A	J	*III
OCDD	3268879	938	9.17	1.74	PG/G			
OCDF	39001020	18.2	9.17	1.66	PG/G			
Total HpCDDs	37871004	403	4.59	0.968	PG/G			
Total HpCDFs	38998753	26	4.59	0.563	PG/G			
Total HxCDDs	34465468	20.5	4.59	0.421	PG/G			
Total HxCDFs	55684941	17.2	4.59	0.385	PG/G			
Total PeCDDs	36088229	0.536	4.59	0.355	PG/G	A	J	*III
Total PeCDFs	30402154	5.06	4.59	0.223	PG/G			
Total TCDDs	41903575	0.239	0.917	0.239	PG/G	U	U	
Total TCDFs	30402143	1.56	0.917	0.313	PG/G			

Sample Name	HZBS0073S001	Matrix Type:	Soil	Result Type:	Primary Result
Lab Sample Name:	G341-567-7B	Sample Date:	2/24/2009 8:47:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	10.1	4.2	0.779	PG/G			
1,2,3,4,6,7,8-HpCDF	67562394	2.36	4.2	0.506	PG/G	A	J	
1,2,3,4,7,8,9-HpCDF	55673897	0.691	4.2	0.691	PG/G	U	U	
1,2,3,4,7,8-HxCDD	39227286	0.673	4.2	0.673	PG/G	U	U	
1,2,3,4,7,8-HxCDF	70648269	0.628	4.2	0.628	PG/G	U	U	
1,2,3,6,7,8-HxCDD	57653857	0.678	4.2	0.678	PG/G	U	U	
1,2,3,6,7,8-HxCDF	57117449	0.606	4.2	0.606	PG/G	U	U	
1,2,3,7,8,9-HxCDD	19408743	0.68	4.2	0.68	PG/G	U	U	
1,2,3,7,8,9-HxCDF	72918219	0.792	4.2	0.792	PG/G	U	U	
1,2,3,7,8-PeCDD	40321764	0.396	4.2	0.396	PG/G	U	U	
1,2,3,7,8-PeCDF	57117416	0.403	4.2	0.403	PG/G	U	U	
2,3,4,6,7,8-HxCDF	60851345	0.657	4.2	0.657	PG/G	U	U	
2,3,4,7,8-PeCDF	57117314	0.45	4.2	0.45	PG/G	U	U	
2,3,7,8-TCDD	1746016	0.293	0.841	0.293	PG/G	U	U	
2,3,7,8-TCDF	51207319	0.662	0.841	0.662	PG/G	U	U	
OCDD	3268879	163	8.41	1.53	PG/G			
OCDF	39001020	4.91	8.41	1.35	PG/G	A	J	
Total HpCDDs	37871004	41.6	4.2	0.779	PG/G			
Total HpCDFs	38998753	5.84	4.2	0.588	PG/G			
Total HxCDDs	34465468	0.859	4.2	0.677	PG/G	A	J	
Total HxCDFs	55684941	2.82	4.2	0.666	PG/G	A	J	
Total PeCDDs	36088229	0.396	4.2	0.396	PG/G	U	U	
Total PeCDFs	30402154	1.31	4.2	0.426	PG/G	A	J	
Total TCDDs	41903575	0.293	0.841	0.293	PG/G	U	U	
Total TCDFs	30402143	0.662	0.841	0.662	PG/G	U	U	

Sample Name	HZBS0079S001	Matrix Type:	Soil	Result Type:	Primary Result
Lab Sample Name:	G341-567-10B	Sample Date:	2/24/2009 9:21:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	7.97	9.04	0.771	PG/G	A	J	
1,2,3,4,6,7,8-HpCDF	67562394	1.91	9.04	0.457	PG/G	A	J	
1,2,3,4,7,8,9-HpCDF	55673897	0.666	9.04	0.666	PG/G	U	U	
1,2,3,4,7,8-HxCDD	39227286	0.437	9.04	0.437	PG/G	U	U	
1,2,3,4,7,8-HxCDF	70648269	0.384	9.04	0.384	PG/G	U	U	
1,2,3,6,7,8-HxCDD	57653857	0.502	9.04	0.433	PG/G	A	J	
1,2,3,6,7,8-HxCDF	57117449	0.353	9.04	0.353	PG/G	U	U	
1,2,3,7,8,9-HxCDD	19408743	0.466	9.04	0.437	PG/G	A	J	
1,2,3,7,8,9-HxCDF	72918219	0.494	9.04	0.494	PG/G	U	U	
1,2,3,7,8-PeCDD	40321764	0.598	9.04	0.598	PG/G	U	U	
1,2,3,7,8-PeCDF	57117416	0.43	9.04	0.43	PG/G	U	U	
2,3,4,6,7,8-HxCDF	60851345	0.378	9.04	0.378	PG/G	U	U	
2,3,4,7,8-PeCDF	57117314	0.423	9.04	0.423	PG/G	U	U	
2,3,7,8-TCDD	1746016	0.669	1.81	0.669	PG/G	U	U	
2,3,7,8-TCDF	51207319	0.717	1.81	0.717	PG/G	U	U	
OCDD	3268879	111	18.1	1.62	PG/G			
OCDF	39001020	6.28	18.1	1.31	PG/G	A	J	
Total HpCDDs	37871004	35.3	9.04	0.385	PG/G			
Total HpCDFs	38998753	4.6	9.04	0.275	PG/G			
Total HxCDDs	34465468	3.77	9.04	0.218	PG/G	A	J	
Total HxCDFs	55684941	3.36	9.04	0.199	PG/G	A	J	
Total PeCDDs	36088229	0.598	9.04	0.598	PG/G	U	U	
Total PeCDFs	30402154	3.09	9.04	0.213	PG/G	A	J	
Total TCDDs	41903575	0.669	1.81	0.669	PG/G	U	U	
Total TCDFs	30402143	0.717	1.81	0.717	PG/G	U	U	

Sample Name	HZBS0089S001	Matrix Type:	Soil	Result Type:	Primary Result
Lab Sample Name:	G341-567-11B	Sample Date:	2/24/2009 10:51:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	41.2	4.3	1.51	PG/G			
1,2,3,4,6,7,8-HpCDF	67562394	5.11	4.3	0.81	PG/G			
1,2,3,4,7,8,9-HpCDF	55673897	1.07	4.3	1.07	PG/G	U	U	
1,2,3,4,7,8-HxCDD	39227286	0.711	4.3	0.711	PG/G	EMPC	UJ	*III
1,2,3,4,7,8-HxCDF	70648269	0.721	4.3	0.535	PG/G	A	J	
1,2,3,6,7,8-HxCDD	57653857	2.11	4.3	0.571	PG/G	A	J	
1,2,3,6,7,8-HxCDF	57117449	0.575	4.3	0.575	PG/G	EMPC	UJ	*III
1,2,3,7,8,9-HxCDD	19408743	1.67	4.3	0.591	PG/G	A	J	
1,2,3,7,8,9-HxCDF	72918219	0.69	4.3	0.69	PG/G	U	U	
1,2,3,7,8-PeCDD	40321764	0.504	4.3	0.504	PG/G	U	U	
1,2,3,7,8-PeCDF	57117416	0.416	4.3	0.342	PG/G	A	J	
2,3,4,6,7,8-HxCDF	60851345	0.571	4.3	0.571	PG/G	U	U	
2,3,4,7,8-PeCDF	57117314	0.876	4.3	0.358	PG/G	A	J	
2,3,7,8-TCDD	1746016	0.36	0.86	0.36	PG/G	U	U	
2,3,7,8-TCDF	51207319	0.92	0.86	0.228	PG/G			
OCDD	3268879	436	8.6	2.74	PG/G			
OCDF	39001020	9.93	8.6	2.4	PG/G			
Total HpCDDs	37871004	166	4.3	1.51	PG/G			
Total HpCDFs	38998753	12.9	4.3	0.922	PG/G			
Total HxCDDs	34465468	17	4.3	0.589	PG/G			
Total HxCDFs	55684941	8.39	4.3	0.573	PG/G			
Total PeCDDs	36088229	1.71	4.3	0.504	PG/G	AQ	J	*III
Total PeCDFs	30402154	7.02	4.3	0.35	PG/G			
Total TCDDs	41903575	0.36	0.86	0.36	PG/G	U	U	
Total TCDFs	30402143	4.75	0.86	0.558	PG/G			

Sample Name	HZBS0090S001	**Matrix Type:**	Soil			**Result Type:**	Primary Result	
Lab Sample Name:	G341-567-12B	**Sample Date:**	2/24/2009 10:09:00 AM			**Validation Level:**	V	
Analyte	**CAS No**	**Result Value**	**RL**	**MDL**	**Result Units**	**Lab Qualifier**	**Validation Qualifier**	**Validation Notes**
1,2,3,4,6,7,8-HpCDD	35822469	3.96	4.29	0.933	PG/G	A	J	
1,2,3,4,6,7,8-HpCDF	67562394	0.649	4.29	0.535	PG/G	A	J	
1,2,3,4,7,8,9-HpCDF	55673897	0.771	4.29	0.771	PG/G	U	U	
1,2,3,4,7,8-HxCDD	39227286	0.51	4.29	0.51	PG/G	U	U	
1,2,3,4,7,8-HxCDF	70648269	0.399	4.29	0.399	PG/G	U	U	
1,2,3,6,7,8-HxCDD	57653857	0.478	4.29	0.478	PG/G	U	U	
1,2,3,6,7,8-HxCDF	57117449	0.397	4.29	0.397	PG/G	U	U	
1,2,3,7,8,9-HxCDD	19408743	0.497	4.29	0.497	PG/G	U	U	
1,2,3,7,8,9-HxCDF	72918219	0.539	4.29	0.539	PG/G	U	U	
1,2,3,7,8-PeCDD	40321764	0.4	4.29	0.4	PG/G	U	U	
1,2,3,7,8-PeCDF	57117416	0.283	4.29	0.283	PG/G	U	U	
2,3,4,6,7,8-HxCDF	60851345	0.421	4.29	0.421	PG/G	U	U	
2,3,4,7,8-PeCDF	57117314	0.307	4.29	0.307	PG/G	U	U	
2,3,7,8-TCDD	1746016	0.378	0.859	0.378	PG/G	U	U	
2,3,7,8-TCDF	51207319	0.51	0.859	0.51	PG/G	U	U	
OCDD	3268879	45.2	8.59	2.61	PG/G			
OCDF	39001020	2.49	8.59	2.32	PG/G	A	J	
Total HpCDDs	37871004	15	4.29	0.933	PG/G			
Total HpCDFs	38998753	0.649	4.29	0.641	PG/G	A	J	
Total HxCDDs	34465468	0.593	4.29	0.495	PG/G	A	J	
Total HxCDFs	55684941	0.435	4.29	0.435	PG/G	U	U	
Total PeCDDs	36088229	0.4	4.29	0.4	PG/G	U	U	
Total PeCDFs	30402154	0.497	4.29	0.497	PG/G	U	U	
Total TCDDs	41903575	0.378	0.859	0.378	PG/G	U	U	
Total TCDFs	30402143	0.51	0.859	0.51	PG/G	U	U	

Analysis Method 6020

Sample Name	EBQW2204	**Matrix Type:**	WATER	**Result Type:**	Primary Result
Lab Sample Name:	225106001	**Sample Date:**	2/24/2009 3:15:00 PM	**Validation Level:**	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440382	1.5	5	1.5	ug/L	U	U	
Cadmium	7440439	0.11	1	0.11	ug/L	U	U	
Copper	7440508	0.44	1	0.3	ug/L	J	J	
Lead	7439921	0.5	2	0.5	ug/L	U	U	
Zinc	7440666	2.6	10	2.6	ug/L	U	U	

Sample Name	FBQW2229	**Matrix Type:**	WATER	**Result Type:**	Primary Result
Lab Sample Name:	225106002	**Sample Date:**	2/24/2009 3:00:00 PM	**Validation Level:**	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440382	1.5	5	1.5	ug/L	U	U	
Cadmium	7440439	0.25	1	0.11	ug/L	J	J	
Copper	7440508	0.48	1	0.3	ug/L	J	J	
Lead	7439921	0.5	2	0.5	ug/L	U	U	
Zinc	7440666	2.6	10	2.6	ug/L	U	U	

Sample Name	HZBS0062S001	**Matrix Type:**	SOIL	**Result Type:**	Primary Result
Lab Sample Name:	225106003	**Sample Date:**	2/24/2009 11:01:00 AM	**Validation Level:**	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439921	13.3	0.43	0.108	mg/kg			

Sample Name	HZBS0063S001	**Matrix Type:**	SOIL	**Result Type:**	Primary Result
Lab Sample Name:	225106004	**Sample Date:**	2/24/2009 11:48:00 AM	**Validation Level:**	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439921	25.7	2.31	0.578	mg/kg			

Sample Name	HZBS0064S001	**Matrix Type:**	SOIL	**Result Type:**	Primary Result
Lab Sample Name:	225106005	**Sample Date:**	2/24/2009 10:28:00 AM	**Validation Level:**	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439921	11.7	0.462	0.115	mg/kg			

Sample Name	HZBS0065S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225106006	Sample Date:	2/24/2009 11:39:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439921	13.1	0.446	0.111	mg/kg			

Sample Name	HZBS0070S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225106009	Sample Date:	2/24/2009 2:45:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cadmium	7440439	0.22	0.227	0.0227	mg/kg	J	J	
Lead	7439921	13.2	0.454	0.113	mg/kg			
Zinc	7440666	51.3	11.3	2.27	mg/kg			

Sample Name	HZBS0073S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225106010	Sample Date:	2/24/2009 8:47:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439921	8.3	0.411	0.103	mg/kg			

Sample Name	HZBS0086S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225106012	Sample Date:	2/24/2009 1:50:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440382	4.5	1.15	0.345	mg/kg			
Cadmium	7440439	0.4	0.23	0.023	mg/kg			
Copper	7440508	15.9	1.15	0.23	mg/kg	*E	J	E, A
Lead	7439921	9.8	0.46	0.115	mg/kg			

Sample Name	HZBS0087S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225106013	Sample Date:	2/24/2009 1:18:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440382	4.8	1.18	0.354	mg/kg			
Cadmium	7440439	0.39	0.236	0.0236	mg/kg			
Copper	7440508	16.9	1.18	0.236	mg/kg	*E	J	E, A
Lead	7439921	9.6	0.472	0.118	mg/kg			

Sample Name	HZBS0088D001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225106014	Sample Date:	2/24/2009	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440382	5.4	1.18	0.355	mg/kg			
Cadmium	7440439	0.41	0.237	0.0237	mg/kg			
Copper	7440508	15.3	1.18	0.237	mg/kg	*E	J	E, A
Lead	7439921	12.7	0.474	0.118	mg/kg			
Zinc	7440666	77.5	11.8	2.37	mg/kg			

Sample Name	HZBS0088S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225106015	Sample Date:	2/24/2009 1:59:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440382	4.2	1.19	0.356	mg/kg			
Cadmium	7440439	0.36	0.238	0.0238	mg/kg			
Copper	7440508	13.9	1.19	0.238	mg/kg	*E	J	E, A
Lead	7439921	11.1	0.475	0.119	mg/kg			
Zinc	7440666	71.7	11.9	2.38	mg/kg			

Sample Name	HZBS0089S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225106016	Sample Date:	2/24/2009 10:51:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439921	14.9	0.439	0.11	mg/kg			

Sample Name	HZBS0090S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225106017	Sample Date:	2/24/2009 10:09:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439921	7.6	0.42	0.105	mg/kg			
Zinc	7440666	57.9	10.5	2.1	mg/kg			

Sample Name	HZBS0091S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225106018	Sample Date:	2/24/2009 11:13:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439921	8	0.449	0.112	mg/kg			

Sample Name	HZBS0093S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225106019	Sample Date:	2/24/2009 1:33:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440382	4.4	1.12	0.335	mg/kg			
Cadmium	7440439	0.38	0.223	0.0223	mg/kg			
Copper	7440508	15.3	1.12	0.223	mg/kg	*E	J	E, A
Lead	7439921	9.8	0.446	0.112	mg/kg			

Sample Name	HZBS0095S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225106021	Sample Date:	2/24/2009 1:40:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440382	4.3	1.14	0.343	mg/kg			
Cadmium	7440439	0.39	0.229	0.0229	mg/kg			
Copper	7440508	14.8	1.14	0.229	mg/kg	*E	J	E, A
Lead	7439921	9.8	0.457	0.114	mg/kg			

Chain of Custody and Supporting Documentation

225170%

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090225_00

Page: 1 of 3

Customer Information		Project Information		Project Information			
Site:	SSFL	**Client Name:**	Boeing	**Collector:**	A. Leavitt	**Boeing PM:**	
Company:	MWH	**Sampling Event:**	ISRA Sampling, Feb 2009	**Contact #:**			
Report to:	Sarah Von Raesfeld	**Project Number:**	1891614.050104				
Address:	2121 N. California Blvd	**Project Manager:**	Alex Fischl				
	Suite 600	**PM Phone #:**	(925) 627-4627				
	Walnut Creek	**Field Contact:**	Brian Martasin				
	CA	**Field Contact #:**	(323) 304-4969				
	94596	**Lab Name:**	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	**Lab Contact:**	Cheryl Jones				
	sean.leffler@mwhglobal.com	**Lab Address:**	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

	Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
✓	CNBS0089S001	Soil	2/25/2009	14:35	1	10								10							
✓	CNBS0090S001	Soil	2/25/2009	14:38	1	10								10							
✓	CNBS0091S001	Soil	2/25/2009	14:44	1	10								10							
✓	CNBS0128S001	Soil	2/25/2009	14:00	2	10	H					10	10	10	10						
✓	CNBS0129S001	Soil	2/25/2009	14:10	2	10	H					10	10	10	10						
✓	CNBS0130S001	Soil	2/25/2009	14:17	2	10	H					10	10	10	10						
✓	EBQW2205	Water	2/25/2009	15:00	3			10	10	10						10	10	10			
✓	HZBS0068S001	Soil	2/25/2009	12:58	2	10	H					10		10	10						
✓	HZBS0069S001	Soil	2/25/2009	12:51	1	10						10		10	10						MS/MSD
✓	HZBS0071S001	Soil	2/25/2009	13:06	1	10						10		10	10						

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
[signature]	2/25/09	[signature]	2/26/09				
Company: MWH	**Time:** 1630	**Company:** GEL	**Time:** 0845	**Company:**	**Time:**	**Company:**	**Time:**

Comments:

Geotracker EDF

Data Validation Package ✓ Level IV

225170'1.

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090225_00

Customer Information		Project Information	
Site:	SSFL	Client Name:	Boeing
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl
	Suite 600	PM Phone #:	(925) 627-4627
	Walnut Creek	Field Contact:	Brian Martasin
	CA	Field Contact #:	(323) 304-4969
	94596	Lab Name:	GEL Laboratories, LLC
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road
			Charleston, SC 29407
		Lab Phone:	(843) 769-7388

Project Information			
Collector:	A. Leavitt	Boeing PM:	
Contact #:			

	Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
						Requested Analyses															
✓	HZBS0072S001	Soil	2/25/2009	12:42	1	10						10		10	10						
✓	HZBS0074S001	Soil	2/25/2009	11:52	1	10								10							
✓	HZBS0075S001	Soil	2/25/2009	13:40	1	H								H							
✓	HZBS0076S001	Soil	2/25/2009	10:39	1	10								10							
✓	HZBS0077S001	Soil	2/25/2009	10:16	2	H	H							H							
✓	HZBS0078S001	Soil	2/25/2009	10:28	1	10								10							
✓	HZBS0080S001	Soil	2/25/2009	10:02	1	10								10							
✓	HZBS0081S001	Soil	2/25/2009	9:42	2	H	H							H							
✓	HZBS0082S001	Soil	2/25/2009	9:00	1	10								10							
✓	HZBS0082S002	Soil	2/25/2009	9:08	1	H								H							

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
[signature]	2/25/09	[signature]	2/26/09				
Company: MWH	Time: 1630	Company: GEL	Time: 0845	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF

Data Validation Package ✓ Level IV

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225170%

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090225_00

Page: 3 of 3

Customer Information		Project Information	
Site:	SSFL	Client Name:	Boeing
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl
	Suite 600	PM Phone #:	(925) 627-4627
	Walnut Creek	Field Contact:	Brian Martasin
	CA	Field Contact #:	(323) 304-4969
	94596	Lab Name:	GEL Laboratories, LLC
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road
			Charleston, SC 29407
		Lab Phone:	(843) 769-7388

Project Information			
Collector:	A. Leavitt	Boeing PM:	
Contact #:			

Sample Name	Matrix	Date	Time	No. of Containers	Requested Analyses: D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
✓ HZBS0083S001	Soil	2/25/2009	8:51	1	H								H							
✓ HZBS0084S001	Soil	2/25/2009	8:40	1	10								10							
✓ HZBS0085S001	Soil	2/25/2009	12:00	1	10					10	10	10	10							
✓ HZBS0092S001	Soil	2/25/2009	8:13	1	10					10	10	10	10							
✓ HZBS0096S001	Soil	2/25/2009	11:45	1	10								10							
✓ HZBS0097S001	Soil	2/25/2009	12:11	1	10								10							

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
B_	2/25/09		2/26/09				
Company: MWH	Time: 1630	Company: GEL	Time: 0845	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF

Data Validation Package ✔ Level IV

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GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SSFL	**SDG/ARCOC/Work Order:** 225170
Received By: Ricky Albee	**Date Received:** 2/26/09

Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		✓	Maximum Counts Observed*: 60 cpm
Classified Radioactive II or III by RSO?		✓	
COC/Samples marked containing PCBs?		✓	
Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		✓	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	✓			Preservation Method: (ice bags) blue ice dry ice none other (describe) 1°C, 3°C
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	✓			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Are Encore containers present?			✓	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	✓			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
11	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	✓			

Comments: FedEx 9457 3158 4196-3°C
9457 3158 4185-1°C

PM (or PMA) review: Initials CAJ Date 2/26/09

Requesting Firm: MWH
Address: 2121 No. California Blvd.
Walnut Creek, CA 94596
Phone: 925-627-4654
Fax: 925-627-4501
E-mail:Sarah.VonRaesfeld@mwhglobal.com

Date: 02/26/09

To: Cheryl Jones **Phone: 843-769-7388**

Laboratory GEL Laboratories, LLC **E-mail: cj@gel.com**

From: Sarah Von Raesfeld

Requestor signature:

Subject: **Chain-of-Custody Form Analytical Request Change** **No. of Pages: 4**

Per Request:
Please make the changes listed below to the chain-of-custody analytical request form. Include this form with the final deliverables for these samples.

COC No.	Client Sample ID(s)	Date Collected	Originally Requested Analyses	Change (s) and Method (s) Now Requested
MWHAL20090225_00	HZBS0096S001	02/25/09		Hold all analyses.

The reason for these changes:

Incorrectly marked on COC form	
Lack of sample volume	
Change in analytical request	*X*
Other:	

Thank you

225170%

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090225_00

Customer Information		Project Information	
Site:	SSFL	Client Name:	Boeing
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl
	Suite 600	PM Phone #:	(925) 627-4627
	Walnut Creek	Field Contact:	Brian Martasin
	CA	Field Contact #:	(323) 304-4969
	94596	Lab Name:	GEL Laboratories, LLC
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road
			Charleston, SC 29407
		Lab Phone:	(843) 769-7388

Project Information			
Collector:	A. Leavitt	Boeing PM:	
Contact #:			

Sample Name	Matrix	Date	Time	No. of Containers	Requested Analyses: D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
✓ CNBS0089S001	Soil	2/25/2009	14:35	1	10								10							
✓ CNBS0090S001	Soil	2/25/2009	14:38	1	10								10							
✓ CNBS0091S001	Soil	2/25/2009	14:44	1	10								10							
✓ CNBS0128S001	Soil	2/25/2009	14:00	2	10	H					10	10	10	10						
✓ CNBS0129S001	Soil	2/25/2009	14:10	2	10	H					10	10	10	10						
✓ CNBS0130S001	Soil	2/25/2009	14:17	2	10	H					10	10	10	10						
✓ EBQW2205	Water	2/25/2009	15:00	3			10	10	10						10	10	10			
✓ HZBS0068S001	Soil	2/25/2009	12:58	2	10	H					10		10	10						
✓ HZBS0069S001	Soil	2/25/2009	12:51	1	10						10		10	10						MS/MSD
✓ HZBS0071S001	Soil	2/25/2009	13:06	1	10						10		10	10						

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
[signature]	2/25/09	[signature]	2/26/09				
Company: MWH	Time: 1630	Company: GEL	Time: 0845	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF

Data Validation Package ✓ Level IV

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225170'1.

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090225_00

Page: 2 of 3

Customer Information		Project Information	
Site:	SSFL	Client Name:	Boeing
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl
	Suite 600	PM Phone #:	(925) 627-4627
	Walnut Creek	Field Contact:	Brian Martasin
	CA	Field Contact #:	(323) 304-4969
	94596	Lab Name:	GEL Laboratories, LLC
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road
			Charleston, SC 29407
		Lab Phone:	(843) 769-7388

Project Information			
Collector:	A. Leavitt	Boeing PM:	
Contact #:			

	Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
✓	HZBS0072S001	Soil	2/25/2009	12:42	1	10						10		10	10						
✓	HZBS0074S001	Soil	2/25/2009	11:52	1	10								10							
✓	HZBS0075S001	Soil	2/25/2009	13:40	1	H								H							
✓	HZBS0076S001	Soil	2/25/2009	10:39	1	10								10							
✓	HZBS0077S001	Soil	2/25/2009	10:16	2	H	H							H							
✓	HZBS0078S001	Soil	2/25/2009	10:28	1	10								10							
✓	HZBS0080S001	Soil	2/25/2009	10:02	1	10								10							
✓	HZBS0081S001	Soil	2/25/2009	9:42	2	H	H							H							
✓	HZBS0082S001	Soil	2/25/2009	9:00	1	10								10							
✓	HZBS0082S002	Soil	2/25/2009	9:08	1	H								H							

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
Company: MWH	Time: 1630	Company: GEL	Time: 0845	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF

Data Validation Package ✓ Level IV

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225170%

BOEING

CHAIN OF COSTODY RECORD

COC #: MWHAL20090225_00

Customer Information		Project Information		Project Information	
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:	
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104	Boeing PM:	
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl		
	Suite 600	PM Phone #:	(925) 627-4627		
	Walnut Creek	Field Contact:	Brian Martasin		
	CA	Field Contact #:	(323) 304-4969		
	94596	Lab Name:	GEL Laboratories, LLC		
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones		
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road		
			Charleston, SC 29407		
		Lab Phone:	(843) 769-7388		

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

	Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
✓	HZBS0083S001	Soil	2/25/2009	8:51	1	H								H							
✓	HZBS0084S001	Soil	2/25/2009	8:40	1	10								10							
✓	HZBS0085S001	Soil	2/25/2009	12:00	1	10					10	10	10	10							
✓	HZBS0092S001	Soil	2/25/2009	8:13	1	10					10	10	10	10							
✓	HZBS0096S001	Soil	2/25/2009	11:45	1	① H								HD							
✓	HZBS0097S001	Soil	2/25/2009	12:11	1	10								10							

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
[signature]	2/25/09	[signature]	2/26/09				
Company: MWH	Time: 1630	Company: GEL	Time: 0845	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF

Data Validation Package ✓ Level IV

① SVR 02/26/09

LABORATORY TASK ORDER (LTO) FORM

INSTRUCTIONS: To be completed by Environmental Contractor & Emailed to Laboratory Project Manager, CH2M HILL (boeingedms@ch2m.com) & the Data Validator at Least 48 hrs prior to need for sample containers. Project Analytical Laboratory will confirm receipt via E-Mail.

Event Name: ISRA Sampling, Feb 2009 **Start:** 2/19/2009 **End:** 2/23/2009

LTO DATE: **LTO NUMBER:**

Consultant Name:	MWH	**Contract Laboratory:**	GEL
Address:	2121 N. California Blvd. Ste. 600	Address:	2040 Savage Rd.
	Walnut Creek, CA 94596		Charleston, SC 29407
Contact Name:	Sarah Von Raesfeld	**Lab Contact Name:**	Cheryl Jones
Phone Number:	925-627-4654	Phone Number:	843-769-7388
Fax Number:	925-627-4501	Fax Number:	843-766-1178
E-mail Address:	Sarah.VonRaesfeld@mwhglobal.com	E-mail Address:	cj@gel.com

SAMPLE CONTAINER ORDER FORM

Date Required: 02/19/09

Date Sample Pickup: NA

Ship Containers To:

Project Site	X	*(enter "X")*
Consultant Office		*(enter "X")*
Other Location (specify in comments)		*(enter "X")*

Container Information:

Trip Blank (VOA only)	Yes	*(Yes/No)*
Temp Blank (VOA Only)	No	*(Yes/No)*
DI Water Required?	No	*(Yes/No)*
MS/MSD Extra Bottles?	No	*(Yes/No)*

Sample Matrix:

Soil	X	*(select all applicable)*
Water	X	*(select all applicable)*
Vapor		*(select all applicable)*

Est. Total # of Samples: 75 Est. Total # of EDDs 5

Requested Analyses: (Specify # of Samples)

	Water	Soil	Contingent
Dioxins - (1613B)	**5**	**9**	**14**
EPA 8015M (DRO)	--	--	--
EPA 8015M (JET FUEL)	--	--	--
EPA 8015M (CC)	--	--	--
EPA 8260B (VOC)	--	--	--
EPA 8270C SIM (SVOC)	--	--	--
EPA 8310 (PAH)	--	--	--
EPA 8082 (PCB)	--	--	--
Acetone (8260B)	--	--	--
EPA TO-15 VOCs (SIM)	--	--	--
Metals (6010B/6020/7470A/7471A)	--	--	--
Cadmium (6020)	**5**	**15**	**10**
Arsenic (6020)	**5**	**5**	**5**
% Moisture (D2216)	**0**	**40**	**30**
Lead (6020)	**5**	**40**	**30**
Copper (6020)	**5**	**10**	**5**
Zinc (6020)	**5**	**10**	**5**
EPA TO-14 (VOCs)	--	--	--

LABORATORY REPORTING REQUIREMENTS

Project TAT:

Normal:	X	(10 Business days)
RUSH:		(Specify- 24 / 48 / 72HRS)
Other :		(Specify # of Days)
Report Due Date:		

Special Reporting Requirements:

Contingent Analysis?	No	*(Yes/No)*
TIC (VOC) Required?	No	*(Yes/No)*
TIC (SVOC) Required?	No	*(Yes/No)*
Data Validation Pckge.:	Tier III	(Boeing Tier I, II or III)

Laboratory Results/Reports Deliverables:

Draft Results Fax?:		(Yes/No)
Draft Results E-mail?:	Yes	(Yes/No)

Specify Fax/E-mail Contact Name, #, E-mail Address: Sarah.VonRaesfeld@mwhglobal.com

Send Original Reports To:

Project Site		*(enter "X")*
Consultant Office		*(enter "X")*
Other Location (specify in comments)	X	*(enter "X")*
# of Copies Reports Req.:	1	

SPECIAL INSTRUCTIONS/LTO NOTES

CONFIRMATION OF TRANSMITTAL & RECEIPT

LTO Sent By:

Name: Sean Leffler

Date: 02/20/09

LTO Received By-

Name:

Date:

LABORATORY TASK ORDER (LTO) FORM (PAGE 2)

ADDITIONAL REQUIRED ANALYSES

LTO DATE: | **LTO NUMBER:**

Consultant Name:	MWH	**Contract Laboratory:**	GEL
Address:	2121 N. California Blvd. Ste. 600	Address:	2040 Savage Rd.
	Walnut Creek, CA 94596		Charleston, SC 29407
Contact Name:	Sarah Von Raesfeld	**Lab Contact Name:**	Cheryl Jones
Phone Number:	925-627-4654	Phone Number:	843-769-7388
Fax Number:	925-627-4501	Fax Number:	843-766-1178
E-mail Address:	Sarah.VonRaesfeld@mwhglobal.com	E-mail Address:	cj@gel.com

SAMPLE CONTAINER ORDER FORM (CONTINUED)

Requested Analyses: **(Specify # of Samples)**

	Water	Soil	Contingent
Arsenic (6020)	--	--	--
Lead (6020)	--	--	--
Cadmium (6020)	--	--	--
Lithium (6020)	--	--	--
Sodium (6020)	--	--	--
Selenium (6020)	--	--	--
Thallium (6020)	--	--	--
Zinc (6020)	--	--	--
Boron (6010B	--	--	--
Vanadium (6010B)	--	--	--
Copper (6020)	--	--	--
Zirconium (6020)	--	--	--

Table of Contents

Case Narrative

Case Narrative
for
Boeing - Santa Susanna Field Laboratory
Work Order: 225170
SDG: 225170

March 10, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample Receipt

The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 26, 2009 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

The laboratory received the following samples:

Laboratory Identification	Sample Description
225170001	CNBS0089S001
225170002	CNBS0090S001
225170003	CNBS0091S001
225170004	CNBS0128S001
225170005	CNBS0129S001
225170006	CNBS0130S001
225170007	EBQW2205
225170008	HZBS0068S001
225170009	HZBS0069S001
225170010	HZBS0071S001
225170011	HZBS0072S001
225170012	HZBS0074S001
225170013	HZBS0075S001
225170014	HZBS0076S001
225170015	HZBS0077S001
225170016	HZBS0078S001
225170017	HZBS0080S001
225170018	HZBS0081S001
225170019	HZBS0082S001
225170020	HZBS0082S002
225170021	HZBS0083S001
225170022	HZBS0084S001
225170023	HZBS0085S001
225170024	HZBS0092S001

225170025 HZBS0096S001
225170026 HZBS0097S001

Items of Note

Santa Susanna Field Laboratory Technical Representative was contacted seeking resolution to any analytical and/or receipt issues. Please see the enclosed e-mails.

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Metals, Percent Moisture and Dioxins (SGS Laboratories).

I certify that this data package is in compliance with the terms and conditions of the subcontract and task order, both technically and for the completeness, for other than the conditions detailed in the attached case narratives.

Cheryl Jones

Project Manager

Data Qualifiers Definitions

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Laboratory Certifications

List of current GEL Certifications as of 09 March 2009

State	Certification
Arizona	AZ0668
Arkansas	88−0651
CLIA	42D0904046
California − NELAP	01151CA
Colorado	GEL
Connecticut	PH−0169
Dept. of Navy	NFESC 413
EPA Region 5	WG−15J
Florida − NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois − NELAP	200029
Indiana	C−SC−01
Kansas − NELAP	E−10332
Kentucky	90129
Louisiana − NELAP	03046
Maryland	270
Massachusetts	M−SC012
Nevada	SC00012
New Jersey − NELAP	SC002
New Mexico	FL NELAP E87156
New York − NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania − NELAP	68−00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas − NELAP	T104704235−07B−TX
U.S. Dept. of Agriculture	S−52597
Utah − NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

DATA VALIDATION REPORT

Boeing SSFL RFI ISRA

SAMPLE DELIVERY GROUP: 225170

Prepared by

MEC^X, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title:	Boeing SSFL RFI ISRA
Contract Task Order:	1261.500D.00
Sample Delivery Group:	225170
Project Manager:	Dixie Hambrick
Matrix:	water/soil
QC Level:	V
No. of Samples:	20
No. of Reanalyses/Dilutions:	0
Laboratory:	GEL

Table 1. Sample Identification

Sample Name	*Lab Sample Name*	*Sub-Lab Sample Name*	*Matrix*	*Collection*	*Method*
CNBS0089S001	225170001	N/A	SOIL	2/25/2009 2:35:00 PM	6020
CNBS0090S001	225170002	N/A	SOIL	2/25/2009 2:38:00 PM	6020
CNBS0091S001	225170003	N/A	SOIL	2/25/2009 2:44:00 PM	6020
CNBS0128S001	225170004	N/A	SOIL	2/25/2009 2:00:00 PM	6020
CNBS0129S001	225170005	N/A	SOIL	2/25/2009 2:10:00 PM	6020
CNBS0130S001	225170006	N/A	SOIL	2/25/2009 2:17:00 PM	6020
EBQW2205	225170007	G341-568-4C	Water	2/25/2009 3:00:00 PM	1613B, 6020
HZBS0068S001	225170008	N/A	SOIL	2/25/2009 12:58:00 PM	6020
HZBS0069S001	225170009	N/A	SOIL	2/25/2009 12:51:00 PM	6020
HZBS0071S001	225170010	N/A	SOIL	2/25/2009 1:06:00 PM	6020
HZBS0072S001	225170011	N/A	SOIL	2/25/2009 12:42:00 PM	6020
HZBS0074S001	225170012	N/A	SOIL	2/25/2009 11:52:00 AM	6020
HZBS0076S001	225170014	N/A	SOIL	2/25/2009 10:39:00 AM	6020
HZBS0078S001	225170016	N/A	SOIL	2/25/2009 10:28:00 AM	6020
HZBS0080S001	225170017	N/A	SOIL	2/25/2009 10:02:00 AM	6020
HZBS0082S001	225170019	N/A	SOIL	2/25/2009 9:00:00 AM	6020
HZBS0084S001	225170022	N/A	SOIL	2/25/2009 8:40:00 AM	6020
HZBS0085S001	225170023	N/A	SOIL	2/25/2009 12:00:00 PM	6020
HZBS0092S001	225170024	N/A	SOIL	2/25/2009 8:13:00 AM	6020
HZBS0097S001	225170026	N/A	SOIL	2/25/2009 12:11:00 PM	6020

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
T-I	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. The tentative identification represents a compound with a CAS number and fit greater than 80%.	Not applicable

T-II	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. The tentative identification represents a class of compound but not of sufficient identification quality to represent a specific compound.	Not applicable
T-III	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. The tentative identification represents an unknown compound.	Not applicable
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight
Date Reviewed: March 19, 2009

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review* (10/99).

- Holding Times: Extraction and analytical holding times were met. The sample was extracted and analyzed within one year of collection.

- Instrument Performance: Review is not applicable at a Level V validation.

- Calibration: Review is not applicable at a Level V validation.

- Blanks: Method blanks had no target compound detects above the EDL.

- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs for the OPR/OPRD were within the acceptance criteria listed in Table 6 of Method 1613.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: The sample in this SDG was an equipment rinsate, EBQW2205. There were no detects above the EDL in the equipment rinsate sample.

    - Field Duplicates: There were no field duplicate samples identified for this SDG.

- Internal Standards Performance: Internal standard recoveries are not routinely evaluated at a Level V validation; however, the recoveries were reported on the sample result summaries. The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.

- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.

- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. The laboratory calculated and reported compound-specific detection limits. Any detect between the EDL and the reporting limit was qualified as estimated, "J." Nondetects are valid to the estimated detection limit (EDL).

B. EPA METHOD 6020—Metals

Reviewed By: P. Meeks
Date Reviewed: March 19, 2009

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Method 6020,* and the *National Functional Guidelines for Inorganic Data Review* (7/02).

- Holding Times: The analytical holding time, six months for ICP-MS metals, was met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no detects.
- Interference Check Samples: Review is not applicable at a Level V validation.
- Blank Spikes and Laboratory Control Samples: Recoveries and the aqueous RPDs were within laboratory-established QC limits.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on HZBS0069S001. All RPDs were within the laboratory-established control limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on HZBS0069S001. Recoveries and RPDs were within laboratory-established QC limits.
- Serial Dilution: Serial dilution analyses were performed on HZBS0069S001 and EBQW2205. All %Ds were within the method-established control limits.
- Internal Standards Performance: Review is not applicable at a Level V validation.
- Sample Result Verification: Review is not applicable at a Level V validation. As the samples in this SDG were validated at Level V, the QC information necessary to make an absolute determination of bias in the samples was not reviewed; therefore, when qualifications were applied, no bias was assigned. The soil analytes were reported form the laboratory's standard 2× dilution for soils. Any result reported between the MDL and the reporting limit was qualified as estimated, "J." Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: FBQW2229 (225106) was the field blank and EBQW2205 was the equipment rinsate associated with the soil samples in this SDG. There were no applicable detects in either sample.

- Field Duplicates: There were no field duplicate samples identified in this SDG.

Validated Sample Result Forms: 225170

Analysis Method 1613B

Sample Name EBQW2205 **Matrix Type:** Water **Result Type:** Primary Result

Lab Sample Name: G341-568-4C **Sample Date:** 2/25/2009 3:00:00 PM **Validation Level:** V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	0.0153	0.0473	0.0153	NG/L	U	U	
1,2,3,4,6,7,8-HpCDF	67562394	0.00925	0.0473	0.00925	NG/L	U	U	
1,2,3,4,7,8,9-HpCDF	55673897	0.0133	0.0473	0.0133	NG/L	U	U	
1,2,3,4,7,8-HxCDD	39227286	0.00407	0.0473	0.00407	NG/L	U	U	
1,2,3,4,7,8-HxCDF	70648269	0.0028	0.0473	0.0028	NG/L	U	U	
1,2,3,6,7,8-HxCDD	57653857	0.00398	0.0473	0.00398	NG/L	U	U	
1,2,3,6,7,8-HxCDF	57117449	0.00267	0.0473	0.00267	NG/L	U	U	
1,2,3,7,8,9-HxCDD	19408743	0.00405	0.0473	0.00405	NG/L	U	U	
1,2,3,7,8,9-HxCDF	72918219	0.00362	0.0473	0.00362	NG/L	U	U	
1,2,3,7,8-PeCDD	40321764	0.00248	0.0473	0.00248	NG/L	U	U	
1,2,3,7,8-PeCDF	57117416	0.00204	0.0473	0.00204	NG/L	U	U	
2,3,4,6,7,8-HxCDF	60851345	0.00302	0.0473	0.00302	NG/L	U	U	
2,3,4,7,8-PeCDF	57117314	0.00205	0.0473	0.00205	NG/L	U	U	
2,3,7,8-TCDD	1746016	0.0025	0.00947	0.0025	NG/L	U	U	
2,3,7,8-TCDF	51207319	0.00257	0.00947	0.00257	NG/L	U	U	
OCDD	3268879	0.016	0.0947	0.016	NG/L	U	U	
OCDF	39001020	0.0108	0.0947	0.0108	NG/L	U	U	
Total HpCDDs	37871004	0.0153	0.0473	0.0153	NG/L	U	U	
Total HpCDFs	38998753	0.0111	0.0473	0.0111	NG/L	U	U	
Total HxCDDs	34465468	0.00404	0.0473	0.00404	NG/L	U	U	
Total HxCDFs	55684941	0.003	0.0473	0.003	NG/L	U	U	
Total PeCDDs	36088229	0.00248	0.0473	0.00248	NG/L	U	U	
Total PeCDFs	30402154	0.00204	0.0473	0.00204	NG/L	U	U	
Total TCDDs	41903575	0.0025	0.00947	0.0025	NG/L	U	U	
Total TCDFs	30402143	0.00257	0.00947	0.00257	NG/L	U	U	

Analysis Method 6020

Sample Name	CNBS0089S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170001	Sample Date:	2/25/2009 2:35:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439-92-1	2.1	0.425	0.106	mg/kg			

Sample Name	CNBS0090S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170002	Sample Date:	2/25/2009 2:38:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439-92-1	5.2	0.415	0.104	mg/kg			

Sample Name	CNBS0091S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170003	Sample Date:	2/25/2009 2:44:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439-92-1	6.4	0.399	0.0997	mg/kg			

Sample Name	CNBS0128S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170004	Sample Date:	2/25/2009 2:00:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cadmium	7440-43-9	0.21	0.23	0.023	mg/kg	J	J	
Copper	7440-50-8	9.3	0.23	0.0459	mg/kg			
Lead	7439-92-1	16.8	0.459	0.115	mg/kg			
Zinc	7440-66-6	52.6	2.3	0.459	mg/kg			

Sample Name	CNBS0129S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170005	Sample Date:	2/25/2009 2:10:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cadmium	7440-43-9	0.18	0.217	0.0217	mg/kg	J	J	
Copper	7440-50-8	8.3	0.217	0.0434	mg/kg			
Lead	7439-92-1	10.8	0.434	0.108	mg/kg			
Zinc	7440-66-6	49.7	2.17	0.434	mg/kg			

Sample Name	CNBS0130S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170006	Sample Date:	2/25/2009 2:17:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cadmium	7440-43-9	0.17	0.214	0.0214	mg/kg	J	J	
Copper	7440-50-8	7.9	0.214	0.0427	mg/kg			
Lead	7439-92-1	12.4	0.427	0.107	mg/kg			
Zinc	7440-66-6	48.2	2.14	0.427	mg/kg			

Sample Name	EBQW2205	Matrix Type:	WATER	Result Type:	Primary Result
Lab Sample Name:	225170007	Sample Date:	2/25/2009 3:00:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440-38-2	1.5	5	1.5	ug/L	U	U	
Cadmium	7440-43-9	0.11	1	0.11	ug/L	U	U	
Copper	7440-50-8	0.3	1	0.3	ug/L	U	U	
Lead	7439-92-1	0.5	2	0.5	ug/L	U	U	
Zinc	7440-66-6	2.6	10	2.6	ug/L	U	U	

Sample Name	HZBS0068S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170008	Sample Date:	2/25/2009 12:58:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cadmium	7440-43-9	0.4	0.221	0.0221	mg/kg			
Lead	7439-92-1	11.7	0.441	0.11	mg/kg			
Zinc	7440-66-6	67.9	2.21	0.441	mg/kg			

Sample Name	HZBS0069S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170009	Sample Date:	2/25/2009 12:51:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cadmium	7440-43-9	0.13	0.213	0.0213	mg/kg	J	J	
Lead	7439-92-1	6.7	0.425	0.106	mg/kg			
Zinc	7440-66-6	47.9	2.13	0.425	mg/kg			

Sample Name	HZBS0071S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170010	Sample Date:	2/25/2009 1:06:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cadmium	7440-43-9	0.4	0.219	0.0219	mg/kg			
Lead	7439-92-1	9.4	0.438	0.109	mg/kg			
Zinc	7440-66-6	45.6	2.19	0.438	mg/kg			

Sample Name	HZBS0072S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170011	Sample Date:	2/25/2009 12:42:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cadmium	7440-43-9	0.096	0.217	0.0217	mg/kg	J	J	
Lead	7439-92-1	7.2	0.435	0.109	mg/kg			
Zinc	7440-66-6	54.1	2.17	0.435	mg/kg			

Sample Name	HZBS0074S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170012	Sample Date:	2/25/2009 11:52:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439-92-1	8.9	0.435	0.109	mg/kg			

Sample Name	HZBS0076S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170014	Sample Date:	2/25/2009 10:39:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439-92-1	11.1	0.432	0.108	mg/kg			

Sample Name	HZBS0078S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170016	Sample Date:	2/25/2009 10:28:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439-92-1	53.6	0.441	0.11	mg/kg			

Sample Name	HZBS0080S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170017	Sample Date:	2/25/2009 10:02:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439-92-1	23.2	0.454	0.114	mg/kg			

Sample Name	HZBS0082S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170019	Sample Date:	2/25/2009 9:00:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439-92-1	25.5	0.446	0.112	mg/kg			

Sample Name	HZBS0084S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170022	Sample Date:	2/25/2009 8:40:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439-92-1	15	0.453	0.113	mg/kg			

Sample Name	HZBS0085S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170023	Sample Date:	2/25/2009 12:00:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440-38-2	4	1.08	0.323	mg/kg			
Cadmium	7440-43-9	0.37	0.216	0.0216	mg/kg			
Copper	7440-50-8	26.2	0.216	0.0431	mg/kg			
Lead	7439-92-1	28.9	0.431	0.108	mg/kg			

Sample Name	HZBS0092S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170024	Sample Date:	2/25/2009 8:13:00 AM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440-38-2	2.1	1.09	0.327	mg/kg			
Cadmium	7440-43-9	0.21	0.218	0.0218	mg/kg	J	J	
Copper	7440-50-8	6.1	0.218	0.0437	mg/kg			
Lead	7439-92-1	21	0.437	0.109	mg/kg			

Sample Name	HZBS0097S001	Matrix Type:	SOIL	Result Type:	Primary Result
Lab Sample Name:	225170026	Sample Date:	2/25/2009 12:11:00 PM	Validation Level:	V

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439-92-1	13.9	0.439	0.11	mg/kg			

Chain of Custody and Supporting Documentation

226636

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHBM20090320_00

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	B. Martasin	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104	Requested Analyses			Instructions/TAT
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water												Comments
HZBS0104S001	Soil	3/20/2009	11:00	1	10	10													

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
[signature]	3/20/09	[signature]	3-21-09				
Company: MWH	Time: 1530	Company: GEL	Time: 0920	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

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226636

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHBM20090320_00

Page: 1 of 2

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	B. Martasin	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104				
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

Sample Name	Matrix	Date	Time	No. of Containers	Requested Analyses: D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Instructions/TAT / Comments
EBQW2206	Water	3/20/2009	11:30	2			10	
HZBS0073S002	Soil	3/20/2009	14:25	1	10	10		
HZBS0079S002	Soil	3/20/2009	14:15	1	10	10		
HZBS0098S001	Soil	3/20/2009	8:05	1	10	10		
HZBS0098S002	Soil	3/20/2009	14:00	1	10	10		
HZBS0099S001	Soil	3/20/2009	8:30	1	10	10		
HZBS0100S001	Soil	3/20/2009	10:40	1	10	10		
HZBS0101S001	Soil	3/20/2009	10:00	1	10	10		
HZBS0102S001	Soil	3/20/2009	9:45	1	10	10		
HZBS0103S001	Soil	3/20/2009	9:20	1	10	10		

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

Comments

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	3-20-09		3-21-09				
Company: MWH	Time: 1530	Company: GEL	Time: 0920	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

6

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SSFL / mwH	**SDG/ARCOC/Work Order:** 226636
Received By: MK	**Date Received:** 3-21-09

Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		✓	Maximum Counts Observed*: Gen 40
Classified Radioactive II or III by RSO?		✓	
COC/Samples marked containing PCBs?		✓	
Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		✓	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken / damaged container / leaking container / other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	✓			Preservation Method: (ice bags) / blue ice / dry ice / none / other (describe) 3°
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken / damaged container / leaking container / other (describe)
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Are Encore containers present?			✓	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	✓			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
11	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	✓			

Comments:

FX 7964 4750 4107

PM (or PMA) review: Initials CAJ Date 3/21/09

~~225170~~ 226636
JT 3/23/09

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090225_00

Page: 1 of 3

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104				
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

	Sample Name	Matrix	Date	Time	No. of Containers	Requested Analyses: D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Water Zn			Instructions/TAT / Comments
✓	CNBS0089S001	Soil	2/25/2009	14:35	1	10								10							
✓	CNBS0090S001	Soil	2/25/2009	14:38	1	10								10							
✓	CNBS0091S001	Soil	2/25/2009	14:44	1	10								10							
✓	CNBS0128S001	Soil	2/25/2009	14:00	2	10	H					10	10	10	10						
✓	CNBS0129S001	Soil	2/25/2009	14:10	2	10	H					10	10	10	10						
✓	CNBS0130S001	Soil	2/25/2009	14:17	2	10	H					10	10	10	10						
✓	EBQW2205	Water	2/25/2009	15:00	3			10	10	10						10	10	10			
✓	HZBS0068S001	Soil	2/25/2009	12:58	2	10	H					10		10	10						
✓	HZBS0069S001	Soil	2/25/2009	12:51	1	10						10		10	10						MS/MSD
✓	HZBS0071S001	Soil	2/25/2009	13:06	1	10						10		10	10						

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
B R	2/25/09	Richard Allen	2/26/09				
Company: MWH	Time: 1630	Company: GEL	Time: 0845	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF

Data Validation Package ✓ Level IV

~~225704~~ 226636
JT 3/24/09

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090225_00

Page: 2 of 3

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104				
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

	Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
✓	HZBS0072S001	Soil	2/25/2009	12:42	1	10						10		10	10						
✓	HZBS0074S001	Soil	2/25/2009	11:52	1	10								10							
✓	HZBS0075S001	Soil	2/25/2009	13:40	1	H								H							
✓	HZBS0076S001	Soil	2/25/2009	10:39	1	10								10							
✓	HZBS0077S001	Soil	2/25/2009	10:16	2	H	H							H							
✓	HZBS0078S001	Soil	2/25/2009	10:28	1	10								10							
✓	HZBS0080S001	Soil	2/25/2009	10:02	1	10								10							
✓	HZBS0081S001	Soil	2/25/2009	9:42	2	H	H							H							
✓	HZBS0082S001	Soil	2/25/2009	9:00	1	10								10							
✓	HZBS0082S002	Soil	2/25/2009	9:08	1	H								H							

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/25/09		2/26/09				
Company: MWH	Time: 1630	Company: GEL	Time: 0845	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF

Data Validation Package ✓ Level IV

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~~225170~~ 226636
JT 3/23/09

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090225_00

Page: 3 of 3

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104				
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 300	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

	Sample Name	Matrix	Date	Time	No. of Containers	Requested Analyses: D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Water Zn			Comments
✓	HZBS0083S001	Soil	2/25/2009	8:51	1	H								H							
✓	HZBS0084S001	Soil	2/25/2009	8:40	1	10								10							
✓	HZBS0085S001	Soil	2/25/2009	12:00	1	10					10	10	10	10							
✓	HZBS0092S001	Soil	2/25/2009	8:13	1	10					10	10	10	10							
✓	HZBS0096S001	Soil	2/25/2009	11:45	1	10								10							
✓	HZBS0097S001	Soil	2/25/2009	12:11	1	10								10							

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
B. [illegible]	2/25/09	[signature]	2/26/09				
Company: MWH	Time: 1630	Company: GEL	Time: 0845	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF

Data Validation Package ✓ Level IV

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GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

226636

Client: SSFC	**SDG/ARCOC/Work Order:** ~~225170~~ JT 3/23/09
Received By: Ricky Albee	**Date Received:** 2/26/09

Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		✓	Maximum Counts Observed*: 60 CPM
Classified Radioactive II or III by RSO?		✓	
COC/Samples marked containing PCBs?		✓	
Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		✓	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken / damaged container / leaking container / other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	✓			Preservation Method: (ice bags) / blue ice / dry ice / none / other (describe) 1°C, 3°C
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken / damaged container / leaking container / other (describe)
5	Samples requiring chemical preservation at proper pH?	✓			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Are Encore containers present?			✓	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	✓			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
11	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	✓			

Comments: FedEx 9457 3158 4196-3°C
9457 3158 4185-1°C

PM (or PMA) review: Initials CAJ Date 2/26/09

BOEING

CHAIN OF CUSTODY RECORD

COC #: JT 5/23/09 ~~225106~~ 226636 MWHAL20090224_00

Page: 1 of 3

Customer Information		Project Information	
Site:	SSFL	Client Name:	Boeing
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl
	Suite 600	PM Phone #:	(925) 627-4627
	Walnut Creek	Field Contact:	Brian Martasin
	CA	Field Contact #:	(323) 304-4969
	94596	Lab Name:	GEL Laboratories, LLC
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road
			Charleston, SC 29407
		Lab Phone:	(843) 769-7388

Project Information			
Collector:	A. Leavitt	Boeing PM:	
Contact #:			

Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
EBQW2204	Water	2/24/2009	15:15	3			10	10	10						10	10	10			
FBQW2229	Water	2/24/2009	15:00	3			10	10	10						10	10	10			Batch # 010709007WF173
HZBS0062S001	Soil	2/24/2009	11:01	1	10								10							
HZBS0063S001	Soil	2/24/2009	11:48	1	10								10							
HZBS0064S001	Soil	2/24/2009	10:28	2	10	H							10							
HZBS0065S001	Soil	2/24/2009	11:39	1	10								10							MS/MSD
HZBS0067D001	Soil	2/24/2009	0:00	1	10	10														
HZBS0067S001	Soil	2/24/2009	8:20	1	10	10														
HZBS0070S001	Soil	2/24/2009	14:45	2	10	10					10		10	10						
HZBS0073S001	Soil	2/24/2009	8:47	2	10	10							10							MS/MSD

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/24/09		2/25/09				
Company: MWH	Time: 1615	Company: GEL	Time: 0840	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

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JT 3/23/09 ~~225106~~ 226636

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090224_00

Page: 2 of 3

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104				
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

	Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water		Comments
✓	HZBS0079S001	Soil	2/24/2009	9:21	2	H	10							H						
✓	HZBS0086S001	Soil	2/24/2009	13:50	1	10					10	10	10	10						
✓	HZBS0087S001	Soil	2/24/2009	13:18	1	10					10	10	10	10						
✓	HZBS0088D001	Soil	2/24/2009	0:00	1	10					10	10	10	10	10					
✓	HZBS0088S001	Soil	2/24/2009	13:59	1	10					10	10	10	10	10					
✓	HZBS0089S001	Soil	2/24/2009	10:51	2	10	10							10						
✓	HZBS0090S001	Soil	2/24/2009	10:09	2	10	10							10	10					
✓	HZBS0091S001	Soil	2/24/2009	11:13	1	10								10						
✓	HZBS0093S001	Soil	2/24/2009	13:33	1	10					10	10	10	10						
✓	HZBS0094S001	Soil	2/24/2009	12:58	2	10					10	10	10	10						MS/MSD

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/24/09		2/25/09				
Company: MWH	Time: 1615	Company: GEL	Time: 0840	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

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226636

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090224_00

Page: 3 of 3

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	169614.050104	Requested Analyses			Instructions/TAT
Address:	2121 N. California Blvd.	Project Manager:	Alex Fischl				
	Suite 800	PM Phone #:	(925) 627-4627				Legend: Numerical values for analyses equate to turn around time in days
	Walnut Creek	Field Contact:	Brian Martesin				
	CA	Field Contact #:	(323) 304-4969				H - Hold
	94596	Lab Name:	GEL Laboratories, LLC				EH - Extract/Extrude & Hold
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leifer@mwhglobal.com	Lab Address:	2040 Savage Road				Note: Values in the cells below are Turn Around Times.
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7366				

Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
HZBS0085S001	Soil	2/24/2009	13:40	1	10					10	10	10	10							

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/24/09		2/25/09				
Company: MWH	Time: 1615	Company: GEL	Time: 0840	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

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GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

226636

Client: SSFL	**SDG/ARCOC/Work Order:** ~~226106~~ JT 3/23/09
Received By: Ricky Albee	**Date Received:** 2/25/09

Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		✓	Maximum Counts Observed*: 60 cpm
Classified Radioactive II or III by RSO?		✓	
COC/Samples marked containing PCBs?		✓	
Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		✓	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	✓			Preservation Method: (ice bags) blue ice dry ice none other (describe) 3°c, 4°c
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	✓			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Are Encore containers present?			✓	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	✓			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?			✓	Sample ID's and containers affected: See comments
10	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
11	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	✓			

Comments: FedEx 9457 3158 4163-3°c
9457 3158 4174-4°c

* Did not receive HZB50090S001SP (page 3 of coc)
Received HZB50095S001, not on coc. 1 container, collected 2/24/09 @ 1340

PM (or PMA) review: Initials JT Date 2/25/09

Requesting Firm: MWH
Address: 2121 No. California Blvd.
Walnut Creek, CA 94596
Phone: 925-627-4654
Fax: 925-627-4501
E-mail:Sarah.VonRaesfeld@mwhglobal.com

Date: 03/25/09

To: Cheryl Jones **Phone: 843-769-7388**

Laboratory GEL Laboratories, LLC **E-mail: cj@gel.com**

From: Sarah Von Raesfeld

Requestor signature:

Subject: **Chain-of-Custody Form Analytical Request Change** **No. of Pages: 7**

Per Request:
Please make the changes listed below to the chain-of-custody analytical request form. Include this form with the final deliverables for these samples.

COC No.	Client Sample ID(s)	Date Collected	Originally Requested Analyses	Change (s) and Method (s) Now Requested
MWHAL20090224_00	HZBS0079S001	02/24/09		Run lead and % moisture
MWHAL20090224_00	HZBS0094S001	02/24/09		Run arsenic, cadmium, copper, lead, dioxins, and % moisture
MWHAL20090225_00	CNBS0091S001	02/25/09		Run dioxins and % moisture
MWHAL20090225_00	CNBS0128S001	02/25/09		Run dioxins and % moisture
MWHAL20090225_00	HZBS0077S001	02/25/09		Run lead, dioxins, and % moisture
MWHAL20090225_00	HZBS0083S001	02/25/09		Run dioxins and % moisture
MWHBM20090320_00	HZBS0073S002	03/20/09		Change ID to HZBS0073AS002
MWHBM20090320_00	HZBS0079S002	03/20/09		Change ID to HZBS0079AS002

The reason for these changes:

Incorrectly marked on COC form	
Lack of sample volume	
Change in analytical request	*X*
Other:	*X*

Thank you

225106

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090224_00

Page: 1 of 3

Customer Information		Project Information	
Site:	SSFL	Client Name:	Boeing
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl
	Suite 600	PM Phone #:	(925) 627-4627
	Walnut Creek	Field Contact:	Brian Martasin
	CA	Field Contact #:	(323) 304-4969
	94596	Lab Name:	GEL Laboratories, LLC
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road
			Charleston, SC 29407
		Lab Phone:	(843) 769-7388

Project Information			
Collector:	A. Leavitt	Boeing PM:	
Contact #:			

Sample Name	Matrix	Date	Time	No. of Containers	Requested Analyses: D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
EBQW2204	Water	2/24/2009	15:15	3			10	10	10						10	10	10			
FBQW2229	Water	2/24/2009	15:00	3			10	10	10						10	10	10			Batch # 010709007WF173
HZBS0062S001	Soil	2/24/2009	11:01	1	10								10							
HZBS0063S001	Soil	2/24/2009	11:48	1	10								10							
HZBS0064S001	Soil	2/24/2009	10:28	2	10	H							10							
HZBS0065S001	Soil	2/24/2009	11:39	1	10								10							MS/MSD
HZBS0067D001	Soil	2/24/2009	0:00	1	10	10														
HZBS0067S001	Soil	2/24/2009	8:20	1	10	10														
HZBS0070S001	Soil	2/24/2009	14:45	2	10	10					10		10	10						
HZBS0073S001	Soil	2/24/2009	8:47	2	10	10							10							MS/MSD

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/24/09		2/25/09				
Company: MWH	Time: 1615	Company: GEL	Time: 0840	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

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225106

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090224_00

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104				
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

	Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
✓	HZBS0079S001	Soil	2/24/2009	9:21	2 (2)	10	10							10							
✓	HZBS0086S001	Soil	2/24/2009	13:50	1	10					10	10	10	10							
✓	HZBS0087S001	Soil	2/24/2009	13:18	1	10					10	10	10	10							
✓	HZBS0088D001	Soil	2/24/2009	0:00	1	10					10	10	10	10	10						
✓	HZBS0088S001	Soil	2/24/2009	13:59	1	10					10	10	10	10	10						
✓	HZBS0089S001	Soil	2/24/2009	10:51	2	10	10							10							
✓	HZBS0090S001	Soil	2/24/2009	10:09	2	10	10							10	10						
✓	HZBS0091S001	Soil	2/24/2009	11:13	1	10								10							
✓	HZBS0093S001	Soil	2/24/2009	13:33	1	10					10	10	10	10							
✓	HZBS0094S001	Soil	2/24/2009	12:58	2	(1) HT	10 (2)			10	HT	HP	HP	HP	(2)						MS/MSD

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/24/09		2/25/09				
Company: MWH	Time: 1615	Company: GEL	Time: 0840	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

(1) SVR 02/26/09

(2) SVR 03/23/09

225170%

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090225_00

Customer Information	
Site:	SSFL
Company:	MWH
Report to:	Sarah Von Raesfeld
Address:	2121 N. California Blvd
	Suite 600
	Walnut Creek
	CA
	94596
Email:	sarah.vonraesfeld@mwhglobal.c
	sean.leffler@mwhglobal.com

Project Information	
Client Name:	Boeing
Sampling Event:	ISRA Sampling, Feb 2009
Project Number:	1891614.050104
Project Manager:	Alex Fischl
PM Phone #:	(925) 627-4627
Field Contact:	Brian Martasin
Field Contact #:	(323) 304-4969
Lab Name:	GEL Laboratories, LLC
Lab Contact:	Cheryl Jones
Lab Address:	2040 Savage Road
	Charleston, SC 29407
Lab Phone:	(843) 769-7388

Project Information			
Collector:	A. Leavitt	Boeing PM:	
Contact #:			

Requested Analyses

	Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
✓	HZBS0083S001	Soil	2/25/2009	8:51	1	H								H							
✓	HZBS0084S001	Soil	2/25/2009	8:40	1	10								10							
✓	HZBS0085S001	Soil	2/25/2009	12:00	1	10					10	10	10	10							
✓	HZBS0092S001	Soil	2/25/2009	8:13	1	10					10	10	10	10							
✓	HZBS0096S001	Soil	2/25/2009	11:45	1	① H								~~H~~D							
✓	HZBS0097S001	Soil	2/25/2009	12:11	1	10								10							

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
B_	2/25/09		2/26/09				
Company: MWH	Time: 1630	Company: GEL	Time: 0845	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF

Data Validation Package ✓ Level IV

① SNR 02/26/09

225170%

CHAIN OF CUSTODY RECORD

BOEING

COC #: MWHAL20090225_00

Page: 1 of 3

Customer Information

Site:	SSFL
Company:	MWH
Report to:	Sarah Von Raesfeld
Address:	2121 N. California Blvd
	Suite 600
	Walnut Creek
	CA
	94596
Email:	sarah.vonraesfeld@mwhglobal.c
	sean.leffler@mwhglobal.com

Project Information

Client Name:	Boeing
Sampling Event:	ISRA Sampling, Feb 2009
Project Number:	1891614.050104
Project Manager:	Alex Fischl
PM Phone #:	(925) 627-4627
Field Contact:	Brian Martasin
Field Contact #:	(323) 304-4969
Lab Name:	GEL Laboratories, LLC
Lab Contact:	Cheryl Jones
Lab Address:	2040 Savage Road
	Charleston, SC 29407
Lab Phone:	(843) 769-7388

Project Information

Collector: A. Leavitt

Boeing PM:

Contact #:

Requested Analyses

Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water	Comments
✓ CNBS0089S001	Soil	2/25/2009	14:35	1	10								10					
✓ CNBS0090S001	Soil	2/25/2009	14:38	1	10								10					
✓ CNBS0091S001	Soil	2/25/2009	14:44	1	10	10②							10					
✓ CNBS0128S001	Soil	2/25/2009	14:00	2	10	H10②					10	10	10	10				
✓ CNBS0129S001	Soil	2/25/2009	14:10	2	10	H					10	10	10	10				
✓ CNBS0130S001	Soil	2/25/2009	14:17	2	10	H					10	10	10	10				
✓ EBQW2205	Water	2/25/2009	15:00	3			10	10	10						10	10	10	
✓ HZBS0068S001	Soil	2/25/2009	12:58	2	10	H					10		10	10				
✓ HZBS0069S001	Soil	2/25/2009	12:51	1	10						10		10	10				MS/MSD
✓ HZBS0071S001	Soil	2/25/2009	13:06	1	10						10		10	10				

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/25/09		2/26/09				
Company: MWH	Time: 1630	Company: GEL	Time: 0845	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF

Data Validation Package ✓ Level IV

② SVR 03/23/09

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CHAIN OF CUSTODY RECORD

COC #: MWHAL20090225_00

Page: 2 of 3

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	A. Leavitt	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104				
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

	Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water	Comments
✓	HZBS0072S001	Soil	2/25/2009	12:42	1	10						10		10	10				
✓	HZBS0074S001	Soil	2/25/2009	11:52	1	10								10					
✓	HZBS0075S001	Soil	2/25/2009	13:40	1	H								H					
✓	HZBS0076S001	Soil	2/25/2009	10:39	1	10								10					
✓	HZBS0077S001	Soil	2/25/2009	10:16	2	② 10	10						②	10					
✓	HZBS0078S001	Soil	2/25/2009	10:28	1	10								10					
✓	HZBS0080S001	Soil	2/25/2009	10:02	1	10								10					
✓	HZBS0081S001	Soil	2/25/2009	9:42	2	H	H							H					
✓	HZBS0082S001	Soil	2/25/2009	9:00	1	10								10					
✓	HZBS0082S002	Soil	2/25/2009	9:08	1	H								H					

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/25/09		2/26/09				
Company: MWH	Time: 1630	Company: GEL	Time: 0845	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF

Data Validation Package ✓ Level IV

② SVR 03/23/09

225170%

CHAIN OF CUSTODY RECORD

COC #: MWHAL20090225_00

Page: 3 of 3

Customer Information		Project Information	
Site:	SSFL	Client Name:	Boeing
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl
	Suite 600	PM Phone #:	(925) 627-4627
	Walnut Creek	Field Contact:	Brian Martasin
	CA	Field Contact #:	(323) 304-4969
	94596	Lab Name:	GEL Laboratories, LLC
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road
			Charleston, SC 29407
		Lab Phone:	(843) 769-7388

Project Information			
Collector:	A. Leavitt	Boeing PM:	
Contact #:			

Sample Name	Matrix	Date	Time	No. of Containers	Requested Analyses: D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Metals 6020 Cd Water	Metals 6020 Cu Water	Metals 6020 Soil Arsenic	Metals 6020 Soil Cadmium	Metals 6020 Soil Copper	Metals 6020 Soil Lead	Metals 6020 Soil Zinc	Metals 6020 Water Arsenic	Metals 6020 Water Lead	Metals 6020 Zn Water			Comments
✓ HZBS0083S001	Soil	2/25/2009	8:51	1	(2) 10	10							H							
✓ HZBS0084S001	Soil	2/25/2009	8:40	1	10								10							
✓ HZBS0086S001	Soil	2/25/2009	12:00	1	10					10	10	10	10							
✓ HZBS0092S001	Soil	2/25/2009	8:13	1	10					10	10	10	10							
✓ HZBS0096S001	Soil	2/25/2009	11:45	1	(1) H								HD							
✓ HZBS0097S001	Soil	2/25/2009	12:11	1	10								10							

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/25/09		2/26/09				
Company: MWH	Time: 1630	Company: GEL	Time: 0845	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF

Data Validation Package ✓ Level IV

(1) SNR 02/26/09

(2) SNR 03/23/09

226636

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHBM20090320_00

Page: 1 of 2

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	B. Martasin	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104				
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

Sample Name	Matrix	Date	Time	No. of Containers	Requested Analyses: D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water	Comments
EBQW2206	Water	3/20/2009	11:30	2			10	
~~HZBS0079S002~~ HZBS0073A S002	Soil	3/20/2009	14:25	1	10	10		
~~HZBS0079S002~~ HZBS0079A S002	Soil	3/20/2009	14:15	1	10	10		
HZBS0098S001	Soil	3/20/2009	8:05	1	10	10		
HZBS0098S002	Soil	3/20/2009	14:00	1	10	10		
HZBS0099S001	Soil	3/20/2009	8:30	1	10	10		
HZBS0100S001	Soil	3/20/2009	10:40	1	10	10		
HZBS0101S001	Soil	3/20/2009	10:00	1	10	10		
HZBS0102S001	Soil	3/20/2009	9:45	1	10	10		
HZBS0103S001	Soil	3/20/2009	9:20	1	10	10		

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	3-20-09		3-21-09				
Company: MWH	Time: 1530	Company: GEL	Time: 0920	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

① SVR 03/25/09

23

226636

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHBM20090320_00

Page: 2 of 2

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	Boeing	Collector:	B. Martasin	Boeing PM:	
Company:	MWH	Sampling Event:	ISRA Sampling, Feb 2009	Contact #:			
Report to:	Sarah Von Raesfeld	Project Number:	1891614.050104				
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl				
	Suite 600	PM Phone #:	(925) 627-4627				
	Walnut Creek	Field Contact:	Brian Martasin				
	CA	Field Contact #:	(323) 304-4969				
	94596	Lab Name:	GEL Laboratories, LLC				
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Cheryl Jones				
	sean.leffler@mwhglobal.com	Lab Address:	2040 Savage Road				
			Charleston, SC 29407				
		Lab Phone:	(843) 769-7388				

Sample Name	Matrix	Date	Time	No. of Containers	D2216 Moisture Soil	Dioxin by 1613B - Soil	Dioxin by 1613B - Water															
HZBS0104S001	Soil	3/20/2009	11:00	1	10	10																

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract/Extrude & Hold

Note: Values in the cells bellow are Turn Around Times.

Comments

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
Company: MWH	Time: 1530	Company: GEL	Time: 0920	Company:	Time:	Company:	Time:

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

LABORATORY TASK ORDER (LTO) FORM

INSTRUCTIONS: To be completed by Environmental Contractor & Emailed to Laboratory Project Manager, CH2M HILL (boeingedms@ch2m.com) & the Data Validator at Least 48 hrs prior to need for sample containers. Project Analytical Laboratory will confirm receipt via E-Mail.

Event Name: ISRA Sampling, Feb 2009 **Start:** 2/19/2009 **End:** 2/23/2009

LTO DATE: **LTO NUMBER:**

Consultant Name:	MWH	**Contract Laboratory:**	GEL
Address:	2121 N. California Blvd. Ste. 600 Walnut Creek, CA 94596	Address:	2040 Savage Rd. Charleston, SC 29407
Contact Name:	Sarah Von Raesfeld	**Lab Contact Name:**	Cheryl Jones
Phone Number:	925-627-4654	Phone Number:	843-769-7388
Fax Number:	925-627-4501	Fax Number:	843-766-1178
E-mail Address:	Sarah.VonRaesfeld@mwhglobal.com	E-mail Address:	cj@gel.com

SAMPLE CONTAINER ORDER FORM

Date Required: 02/19/09

Date Sample Pickup: NA

Ship Containers To:

Project Site	X	*(enter "X")*
Consultant Office		*(enter "X")*
Other Location (specify in comments)		*(enter "X")*

Container Information:

Trip Blank (VOA only)	Yes	*(Yes/No)*
Temp Blank (VOA Only)	No	*(Yes/No)*
DI Water Required?	No	*(Yes/No)*
MS/MSD Extra Bottles?	No	*(Yes/No)*

Sample Matrix:

Soil	X	*(select all applicable)*
Water	X	*(select all applicable)*
Vapor		*(select all applicable)*

Est. Total # of Samples: 75 Est. Total # of EDDs 5

Requested Analyses: (Specify # of Samples)

	Water	Soil	Contingent
Dioxins - (1613B)	**5**	**9**	**14**
EPA 8015M (DRO)	--	--	--
EPA 8015M (JET FUEL)	--	--	--
EPA 8015M (CC)	--	--	--
EPA 8260B (VOC)	--	--	--
EPA 8270C SIM (SVOC)	--	--	--
EPA 8310 (PAH)	--	--	--
EPA 8082 (PCB)	--	--	--
Acetone (8260B)	--	--	--
EPA TO-15 VOCs (SIM)	--	--	--
Metals (6010B/6020/7470A/7471A)	--	--	--
Cadmium (6020)	**5**	**15**	**10**
Arsenic (6020)	**5**	**5**	**5**
% Moisture (D2216)	**0**	**40**	**30**
Lead (6020)	**5**	**40**	**30**
Copper (6020)	**5**	**10**	**5**
Zinc (6020)	**5**	**10**	**5**
EPA TO-14 (VOCs)	--	--	--

LABORATORY REPORTING REQUIREMENTS

Project TAT:

Normal:	X	(10 Business days)
RUSH:		(Specify- 24 / 48 / 72HRS)
Other :		(Specify # of Days)
Report Due Date:		

Special Reporting Requirements:

Contingent Analysis?	No	*(Yes/No)*
TIC (VOC) Required?	No	*(Yes/No)*
TIC (SVOC) Required?	No	*(Yes/No)*
Data Validation Pckge.:	Tier III	(Boeing Tier I, II or III)

Laboratory Results/Reports Deliverables:

Draft Results Fax?:		(Yes/No)
Draft Results E-mail?:	Yes	(Yes/No)

Specify Fax/E-mail Contact Name, #, E-mail Address: Sarah.VonRaesfeld@mwhglobal.com

Send Original Reports To:

Project Site		*(enter "X")*
Consultant Office		*(enter "X")*
Other Location (specify in comments)	X	*(enter "X")*
# of Copies Reports Req.:	1	

SPECIAL INSTRUCTIONS/LTO NOTES

CONFIRMATION OF TRANSMITTAL & RECEIPT

LTO Sent By:

Name: Sean Leffler

Date: 02/20/09

LTO Received By-

Name:

Date:

LABORATORY TASK ORDER (LTO) FORM (PAGE 2)

ADDITIONAL REQUIRED ANALYSES

LTO DATE: | **LTO NUMBER:**

Consultant Name:	MWH	**Contract Laboratory:**	GEL
Address:	2121 N. California Blvd. Ste. 600	Address:	2040 Savage Rd.
	Walnut Creek, CA 94596		Charleston, SC 29407
Contact Name:	Sarah Von Raesfeld	**Lab Contact Name:**	Cheryl Jones
Phone Number:	925-627-4654	Phone Number:	843-769-7388
Fax Number:	925-627-4501	Fax Number:	843-766-1178
E-mail Address:	Sarah.VonRaesfeld@mwhglobal.com	E-mail Address:	cj@gel.com

SAMPLE CONTAINER ORDER FORM (CONTINUED)

Requested Analyses: **(Specify # of Samples)**

	Water	Soil	Contingent
Arsenic (6020)	--	--	--
Lead (6020)	--	--	--
Cadmium (6020)	--	--	--
Lithium (6020)	--	--	--
Sodium (6020)	--	--	--
Selenium (6020)	--	--	--
Thallium (6020)	--	--	--
Zinc (6020)	--	--	--
Boron (6010B	--	--	--
Vanadium (6010B)	--	--	--
Copper (6020)	--	--	--
Zirconium (6020)	--	--	--

Table of Contents

Case Narrative

Case Narrative
for
Boeing - Santa Susanna Field Laboratory
Work Order: 226636
SDG: 226636

April 02, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample Receipt

The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 25, 2009, February 26, 2009 and March 21, 2009 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

The laboratory received the following samples:

Laboratory Identification	Sample Description
226636001	EBQW2206
226636002	HZBS0073AS002
226636003	HZBS0079AS002
226636004	HZBS0098S001
226636005	HZBS0098S002
226636006	HZBS0099S001
226636007	HZBS0100S001
226636008	HZBS0101S001
226636009	HZBS0102S001
226636010	HZBS0103S001
226636011	HZBS0104S001
226636012	CNBS0091S001
226636013	CNBS0128S001
226636014	HZBS0077S001
226636015	HZBS0083S001
226636016	HZBS0079S001
226636017	HZBS0094S001

Items of Note

Santa Susanna Field Laboratory Technical Representative was contacted seeking resolution to any analytical and/or receipt issues. Please see the enclosed e-mails.

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Metals, Percent Moisture and Dioxins (SGS Laboratories).

I certify that this data package is in compliance with the terms and conditions of the subcontract and task order, both technically and for the completeness, for other than the conditions detailed in the attached case narratives.

Amanda Rasco signing for Cheryl Jones

Project Manager

Data Qualifiers Definitions

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Laboratory Certifications

List of current GEL Certifications as of 27 March 2009

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

DATA VALIDATION REPORT

Boeing SSFL RFI ISRA

SAMPLE DELIVERY GROUP: 226636

Prepared by

MEC^X, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title:	Boeing SSFL RFI ISRA
Contract Task Order:	1261.500D.00
Sample Delivery Group:	226636
Project Manager:	Dixie Hambrick
Matrix:	water/soil
QC Level:	V
No. of Samples:	17
No. of Reanalyses/Dilutions:	0
Laboratory:	GEL

Table 1. Sample Identification

Sample Name	*Lab Sample Name*	*Sub-Lab Sample Name*	*Matrix*	*Collection*	*Method*
HZBS0077S001	226636014	G341-574-14C	Soil	2/25/2009 10:16:00 AM	6020
HZBS0079S001	226636016	N/A	Soil	2/24/2009 9:21:00 AM	6020
HZBS0094S001	226636017	N/A	Soil	2/24/2009 12:58:00 PM	6020
HZBS0103S001	226636010	G341-574-10C	Soil	3/20/2009 9:20:00 AM	1613B
HZBS0104S001	226636011	G341-574-11C	Soil	3/20/2009 11:00:00 AM	1613B
CNBS0091S001	226636012	G341-574-12C	Soil	2/25/2009 2:44:00 PM	1613B
CNBS0128S001	226636013	G341-574-13C	Soil	2/25/2009 2:00:00 PM	1613B
HZBS0083S001	2266360	G341-574-15C	Soil	2/25/2009 8:51:00 AM	1613B
HZBS0094S001	2266360	G341-574-16E	Soil	2/24/2009 12:58:00 PM	1613B
EBQW2206	226636001	G341-574-1C	Water	3/20/2009 11:30:00 AM	1613B
HZBS0073AS002	226636002	G341-574-2B	Soil	3/20/2009 2:25:00 PM	1613B
HZBS0073AS002	226636002	G341-574-2C	Soil	3/20/2009 2:25:00 PM	1613B
HZBS0079AS002	226636003	G341-574-3C	Soil	3/20/2009 2:15:00 PM	1613B
HZBS0098S001	226636004	G341-574-4D	Soil	3/20/2009 8:05:00 AM	1613B
HZBS0098S002	226636005	G341-574-5C	Soil	3/20/2009 2:00:00 PM	1613B
HZBS0099S001	226636006	G341-574-6B	Soil	3/20/2009 8:30:00 AM	1613B
HZBS0100S001	226636007	G341-574-7C	Soil	3/20/2009 10:40:00 AM	1613B
HZBS0101S001	226636008	G341-574-8C	Soil	3/20/2009 10:00:00 AM	1613B
HZBS0102S001	226636009	G341-574-9C	Soil	3/20/2009 9:45:00 AM	1613B

II. Sample Management

No anomalies were observed regarding sample management. One of the coolers associated with the samples was received below the temperature limit; however, the samples were not noted to be damaged or frozen. The remaining coolers in this SDG were received at the laboratories within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact. According to an email from the client dated 03/23/09, he sample IDs for HZBS0073S002 and HZBS0079S002 were changed to HZBS0073AS002 and HZBS0079AS002, respectively. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
T-I	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. The tentative identification represents a compound with a CAS number and fit greater than 80%.	Not applicable

T-II	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. The tentative identification represents a class of compound but not of sufficient identification quality to represent a specific compound.	Not applicable
T-III	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. The tentative identification represents an unknown compound.	Not applicable
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight and E. Wessling
Date Reviewed: April 17, 2009

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review* (10/99).

- Holding Times: Extraction and analytical holding times were met. The samples were extracted and analyzed within one year of collection.

- Instrument Performance: Review is not applicable at a Level V validation. Instrument performance was evaluated for samples HZBS0073S002 and HZBS0099S001. The instrument performance was deemed acceptable.

- Calibration: Review is not applicable at a Level V validation.

- Blanks: Three soil blanks were associated with the soil site samples. LMB for Batch WG17051 had OCDD, OCDF, and total HpCDFs were reported at 20.7 pg/g, 3.06(J) pg/g, and 1.20 (pg/g), respectively. LMB for Batch 17059 had detects for OCDD and total HPCDDs were reported in the aqueous method blank at 9.96(J) and 3.06(J), respectively. LMB for Batch WG17062 was nondetect for all target compounds. Any detect for OCDD and/or OCDF less than five times the concentration of the method blank was qualified as nondetected, "U," at the reporting limit for results between the EDL and the adjusted reporting limit and at the level of contamination for detects above the adjusted RL. Method blank contamination was not evaluated for total HpCDFs as the raw data was not reviewed at a Level V. The LMB for Batch WG17060 associated with the aqueous sample was nondetect for all target compounds and no qualifications were required.

- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs for the OPR/OPRD pairs were within the acceptance criteria listed in Table 6 of Method 1613.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: Sample FBQW2206 (225106) was the field blank and EBQW2206 was the equipment rinsate sample identified for this SDG. There were no detects above the EDL in the field QC samples.

    - Field Duplicates: There were no field duplicate samples identified for this SDG.

- Internal Standards Performance: Internal standard recoveries are not routinely evaluated at a Level V validation; however, the recoveries were reported on the sample result summaries. The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.

- Compound Identification: Samples HZBS0073S001 and HZBS0099S001 were reviewed at Level IV. All other samples were reviewed at Level V. Review is not applicable at a Level V validation. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613. Confirmation analysis was not performed by the laboratory for detects for 2,3,7,8-TCDF below the reporting limit; therefore, the detects for 2,3,7,8-TCDF were qualified as estimated, "J," in samples HZBS0077S001, HZBS0083S001 and HZBS0100S001. 1,2,3,4,7,8-HxCDD in sample HZBS0073AS002 was misidentified as an EMPC value due to the incorrect peak being evaluated for this compound by the computer system algorithm. The reviewer removed this qualification and this target compound was reported as a nondetect as there was no peak corresponding to this isomer. 1,2,3,6,7,8-HxCDD was reported as a nondetect in the same sample and should have been reported as an EMPC value. The reviewer corrected the sample result to reflect this designation as the peak did not meet the ion abundance ratio criterion.

  Sample HZBS0099S001 was reprepped and reanalyzed to confirm the level of dioxins in the sample. The reanalysis confirmed the original results. The reanalysis was rejected by the reviewer in favor of the original analysis.

- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. The laboratory calculated and reported compound-specific detection limits. Any detect below the laboratory lower calibration level was qualified as estimated, "J." Nondetects are valid to the estimated detection limit (EDL). Estimated maximum possible concentrations (EMPCs) were identified in some of the samples of this SDG and were qualified as estimated and nondetected, "UJ." Quantitative interference, as denoted by a laboratory "Q" flag, was identified in some of the samples in this SDG and detects were qualified as estimated, "J." Polychlorinated diphenyl ether interference was present in some of the samples of this SDG, as denoted by a laboratory "DPE" flag. Any detects with a laboratory "DPE" flag were qualified as estimated, "J." Some target compounds were reported above the upper range of the calibration in sample HZBS0099S001, as denoted with a laboratory "E" flag; therefore, these detects were qualified as estimated, "J." When confirmation analyses were performed on a second column, 2,3,7,8-TCDF was reported from the confirmation analysis.

B. EPA METHODS 6020—Metals

Reviewed By: P. Meeks
Date Reviewed: April 21, 2009

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Method 6020,* and the *National Functional Guidelines for Inorganic Data Review* (7/02).

- Holding Times: The analytical holding time, six months for ICP-MS metals, was met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no detects.
- Interference Check Samples: Review is not applicable at a Level V validation.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on HZBS0094S001.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on HZBS0094S001. The copper MS recovery was below the control limit; therefore, copper detected in HZBS0094S001 was qualified as estimated, "J." All remaining recoveries and all RPDs were within laboratory-established QC limits.
- Serial Dilution: Serial dilution analyses were performed on HZBS0094S001. The %D for copper exceeded the control limit; therefore, copper detected in HZBS0094S001 was qualified as estimated, "J." All remaining %Ds were within laboratory-established QC limits.
- Internal Standards Performance: Review is not applicable at a Level V validation.
- Sample Result Verification: Review is not applicable at a Level V validation. As the samples in this SDG were validated at Level V, the QC information necessary to make an absolute determination of bias in the samples was not reviewed; therefore, when qualifications were applied, no bias was assigned. All results were reported from the laboratory's standard 2× dilution for soils. Any result reported between the MDL and the reporting limit was qualified as estimated, "J." Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC

data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: Sample FBQW2206 (225106) was the field blank and EBQW2205 (225170) was the equipment rinsate associated with the samples in for this SDG. There were no applicable detects in the field QC samples.

- Field Duplicates: There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms: 226636

Analysis Method 1613B

Sample Name CNBS0091S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-12C **Sample Date:** 2/25/2009 2:44:00 PM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	1.77	4.37	1.18	pg/g	A	**J**	
1,2,3,4,6,7,8-HpCDF	67562394	1.2	4.37	0.553	pg/g	A	**J**	
1,2,3,4,7,8,9-HpCDF	55673897	0.806	4.37	0.806	pg/g	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	0.623	4.37	0.623	pg/g	U	**U**	
1,2,3,4,7,8-HxCDF	70648269	0.363	4.37	0.363	pg/g	U	**U**	
1,2,3,6,7,8-HxCDD	57653857	0.608	4.37	0.608	pg/g	U	**U**	
1,2,3,6,7,8-HxCDF	57117449	0.349	4.37	0.349	pg/g	U	**U**	
1,2,3,7,8,9-HxCDD	19408743	0.704	4.37	0.617	pg/g	A	**J**	
1,2,3,7,8,9-HxCDF	72918219	0.53	4.37	0.53	pg/g	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.461	4.37	0.461	pg/g	U	**U**	
1,2,3,7,8-PeCDF	57117416	0.293	4.37	0.293	pg/g	U	**U**	
2,3,4,6,7,8-HxCDF	60851345	0.36	4.37	0.36	pg/g	U	**U**	
2,3,4,7,8-PeCDF	57117314	0.294	4.37	0.294	pg/g	U	**U**	
2,3,7,8-TCDD	1746016	0.55	0.873	0.55	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	0.706	0.873	0.706	pg/g	U	**U**	
OCDD	3268879	16.2	16.2	16.2	pg/g		**U**	**B, RL changed from 8.73 and MDL from 2.73**
OCDF	39001020	8.73	8.73	8.73	pg/g	A	**U**	**B, result changed from 2.6 and MDL from 2.05**
Total HpCDDs	37871004	6.67	4.37	1.18	pg/g			
Total HpCDFs	38998753	1.87	4.37	0.668	pg/g	A	**J**	
Total HxCDDs	34465468	0.704	4.37	0.614	pg/g	A	**J**	
Total HxCDFs	55684941	0.394	4.37	0.394	pg/g	U	**U**	
Total PeCDDs	36088229	0.461	4.37	0.461	pg/g	U	**U**	
Total PeCDFs	30402154	0.325	4.37	0.325	pg/g	U	**U**	
Total TCDDs	41903575	0.55	0.873	0.55	pg/g	U	**U**	
Total TCDFs	55722275	0.706	0.873	0.706	pg/g	U	**U**	

Analysis Method 1613B

Sample Name CNBS0128S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-13C **Sample Date:** 2/25/2009 2:00:00 PM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	9.69	4.5	1.41	pg/g			
1,2,3,4,6,7,8-HpCDF	67562394	2.74	4.5	0.724	pg/g	A	**J**	
1,2,3,4,7,8,9-HpCDF	55673897	1.08	4.5	1.08	pg/g	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	0.732	4.5	0.732	pg/g	U	**U**	
1,2,3,4,7,8-HxCDF	70648269	0.628	4.5	0.57	pg/g	A	**J**	
1,2,3,6,7,8-HxCDD	57653857	0.717	4.5	0.717	pg/g	U	**U**	
1,2,3,6,7,8-HxCDF	57117449	0.582	4.5	0.558	pg/g	A	**J**	
1,2,3,7,8,9-HxCDD	19408743	0.728	4.5	0.728	pg/g	U	**U**	
1,2,3,7,8,9-HxCDF	72918219	0.819	4.5	0.819	pg/g	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.588	4.5	0.588	pg/g	U	**U**	
1,2,3,7,8-PeCDF	57117416	0.47	4.5	0.47	pg/g	U	**U**	
2,3,4,6,7,8-HxCDF	60851345	0.614	4.5	0.587	pg/g	A	**J**	
2,3,4,7,8-PeCDF	57117314	0.927	4.5	0.471	pg/g	A	**J**	
2,3,7,8-TCDD	1746016	0.456	0.9	0.456	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	0.967	0.9	0.199	pg/g			
OCDD	3268879	69.5	69.5	69.5	pg/g		**U**	**B, RL changed from 9 and MDL from 3.3**
OCDF	39001020	9	9	9	pg/g	A	**U**	**B, result changed from 5.65 and MDL from 2.75**
Total HpCDDs	37871004	33.4	4.5	1.41	pg/g			
Total HpCDFs	38998753	5.03	4.5	0.883	pg/g			
Total HxCDDs	34465468	3.97	4.5	0.725	pg/g	A	**J**	
Total HxCDFs	55684941	5.69	4.5	0.626	pg/g			
Total PeCDDs	36088229	0.588	4.5	0.588	pg/g	U	**U**	
Total PeCDFs	30402154	9.09	4.5	0.471	pg/g			
Total TCDDs	41903575	0.456	0.9	0.456	pg/g	U	**U**	
Total TCDFs	55722275	8.35	0.9	0.514	pg/g			

Analysis Method 1613B

Sample Name EBQW2206 **Matrix Type:** Water **Result Type:** Primary Result

Lab Sample Name: G341-574-1C **Sample Date:** 3/20/2009 11:30:00 AM **Validation Level:** V

Matrix Type: Water

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	0.0147	0.0473	0.0147	ng/L	U	**U**	
1,2,3,4,6,7,8-HpCDF	67562394	0.00815	0.0473	0.00815	ng/L	U	**U**	
1,2,3,4,7,8,9-HpCDF	55673897	0.0121	0.0473	0.0121	ng/L	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	0.00709	0.0473	0.00709	ng/L	U	**U**	
1,2,3,4,7,8-HxCDF	70648269	0.00553	0.0473	0.00553	ng/L	U	**U**	
1,2,3,6,7,8-HxCDD	57653857	0.00663	0.0473	0.00663	ng/L	U	**U**	
1,2,3,6,7,8-HxCDF	57117449	0.00477	0.0473	0.00477	ng/L	U	**U**	
1,2,3,7,8,9-HxCDD	19408743	0.00687	0.0473	0.00687	ng/L	U	**U**	
1,2,3,7,8,9-HxCDF	72918219	0.00763	0.0473	0.00763	ng/L	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.0067	0.0473	0.0067	ng/L	U	**U**	
1,2,3,7,8-PeCDF	57117416	0.00331	0.0473	0.00331	ng/L	U	**U**	
2,3,4,6,7,8-HxCDF	60851345	0.00567	0.0473	0.00567	ng/L	U	**U**	
2,3,4,7,8-PeCDF	57117314	0.00351	0.0473	0.00351	ng/L	U	**U**	
2,3,7,8-TCDD	1746016	0.00406	0.00946	0.00406	ng/L	U	**U**	
2,3,7,8-TCDF	51207319	0.00477	0.00946	0.00477	ng/L	U	**U**	
OCDD	3268879	0.0278	0.0946	0.0278	ng/L	U	**U**	
OCDF	39001020	0.0242	0.0946	0.0242	ng/L	U	**U**	
Total HpCDDs	37871004	0.0147	0.0473	0.0147	ng/L	U	**U**	
Total HpCDFs	38998753	0.00994	0.0473	0.00994	ng/L	U	**U**	
Total HxCDDs	34465468	0.00684	0.0473	0.00684	ng/L	U	**U**	
Total HxCDFs	55684941	0.0058	0.0473	0.0058	ng/L	U	**U**	
Total PeCDDs	36088229	0.0067	0.0473	0.0067	ng/L	U	**U**	
Total PeCDFs	30402154	0.00347	0.0473	0.00347	ng/L	U	**U**	
Total TCDDs	41903575	0.00406	0.00946	0.00406	ng/L	U	**U**	
Total TCDFs	55722275	0.00477	0.00946	0.00477	ng/L	U	**U**	

Analysis Method 1613B

Sample Name HZBS0073AS002 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-2C **Sample Date:** 3/20/2009 2:25:00 PM **Validation Level:** IV/V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	11.7	4.57	1.42	pg/g			
1,2,3,4,6,7,8-HpCDF	67562394	2.92	4.57	0.775	pg/g	A	**J**	
1,2,3,4,7,8,9-HpCDF	55673897	1.33	4.57	1.33	pg/g	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	0.854	4.57	0.854	pg/g	EMPC	**U**	**$**
1,2,3,4,7,8-HxCDF	70648269	0.566	4.57	0.566	pg/g	U	**U**	
1,2,3,6,7,8-HxCDD	57653857	0.749	4.57	0.749	pg/g	U	**UJ**	***III, $**
1,2,3,6,7,8-HxCDF	57117449	0.538	4.57	0.538	pg/g	U	**U**	
1,2,3,7,8,9-HxCDD	19408743	0.78	4.57	0.78	pg/g	U	**U**	
1,2,3,7,8,9-HxCDF	72918219	0.814	4.57	0.814	pg/g	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.605	4.57	0.605	pg/g	U	**U**	
1,2,3,7,8-PeCDF	57117416	0.382	4.57	0.382	pg/g	U	**U**	
2,3,4,6,7,8-HxCDF	60851345	0.577	4.57	0.577	pg/g	U	**U**	
2,3,4,7,8-PeCDF	57117314	0.378	4.57	0.378	pg/g	U	**U**	
2,3,7,8-TCDD	1746016	0.449	0.914	0.449	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	0.536	0.914	0.536	pg/g	U	**U**	
OCDD	3268879	147	9.14	4.74	pg/g			
OCDF	39001020	9.14	9.14	9.14	pg/g	A	**U**	**B, result changed from 6.92 and MDL from 4.26**
Total HpCDDs	37871004	39.3	4.57	1.42	pg/g			
Total HpCDFs	38998753	8.05	4.57	1.02	pg/g			
Total HxCDDs	34465468	1.08	4.57	0.777	pg/g	A	**J**	
Total HxCDFs	55684941	3.16	4.57	0.616	pg/g	A	**J**	
Total PeCDDs	36088229	0.605	4.57	0.605	pg/g	U	**U**	
Total PeCDFs	30402154	0.514	4.57	0.38	pg/g	A	**J**	
Total TCDDs	41903575	0.449	0.914	0.449	pg/g	U	**U**	
Total TCDFs	55722275	0.536	0.914	0.536	pg/g	U	**U**	

Analysis Method 1613B

Sample Name HZBS0077S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-14C **Sample Date:** 2/25/2009 10:16:00 AM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	5.65	4.55	1.27	pg/g			
1,2,3,4,6,7,8-HpCDF	67562394	1.46	4.55	0.725	pg/g	A	**J**	
1,2,3,4,7,8,9-HpCDF	55673897	1.1	4.55	1.1	pg/g	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	0.964	4.55	0.964	pg/g	EMPC	**UJ**	***III**
1,2,3,4,7,8-HxCDF	70648269	0.513	4.55	0.513	pg/g	U	**U**	
1,2,3,6,7,8-HxCDD	57653857	0.713	4.55	0.713	pg/g	U	**U**	
1,2,3,6,7,8-HxCDF	57117449	0.48	4.55	0.48	pg/g	U	**U**	
1,2,3,7,8,9-HxCDD	19408743	0.853	4.55	0.732	pg/g	A	**J**	
1,2,3,7,8,9-HxCDF	72918219	0.737	4.55	0.737	pg/g	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.619	4.55	0.619	pg/g	U	**U**	
1,2,3,7,8-PeCDF	57117416	0.326	4.55	0.326	pg/g	U	**U**	
2,3,4,6,7,8-HxCDF	60851345	0.527	4.55	0.527	pg/g	U	**U**	
2,3,4,7,8-PeCDF	57117314	0.373	4.55	0.328	pg/g	A	**J**	
2,3,7,8-TCDD	1746016	0.427	0.91	0.427	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	0.682	0.91	0.451	pg/g	A	**J**	***III**
OCDD	3268879	43.7	43.7	43.7	pg/g		**U**	**B, RL changed from 9.1 and MDL from 3.69**
OCDF	39001020	9.1	9.1	9.1	pg/g	A	**U**	**B, result changed from 4.44 and MDL from 3.01**
Total HpCDDs	37871004	20.4	4.55	1.27	pg/g			
Total HpCDFs	38998753	3.25	4.55	0.89	pg/g	A	**J**	
Total HxCDDs	34465468	3.42	4.55	0.729	pg/g	A	**J**	
Total HxCDFs	55684941	2.12	4.55	0.556	pg/g	A	**J**	
Total PeCDDs	36088229	0.619	4.55	0.619	pg/g	U	**U**	
Total PeCDFs	30402154	2.06	4.55	0.327	pg/g	A	**J**	
Total TCDDs	41903575	0.427	0.91	0.427	pg/g	U	**U**	
Total TCDFs	55722275	2.53	0.91	0.451	pg/g			

Analysis Method 1613B

Sample Name HZBS0079AS002 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-3C **Sample Date:** 3/20/2009 2:15:00 PM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	1.18	4.57	1.13	pg/g	A	**J**	
1,2,3,4,6,7,8-HpCDF	67562394	0.628	4.57	0.628	pg/g	U	**U**	
1,2,3,4,7,8,9-HpCDF	55673897	0.947	4.57	0.947	pg/g	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	1.07	4.57	1.07	pg/g	U	**U**	
1,2,3,4,7,8-HxCDF	70648269	0.591	4.57	0.591	pg/g	U	**U**	
1,2,3,6,7,8-HxCDD	57653857	0.983	4.57	0.983	pg/g	U	**U**	
1,2,3,6,7,8-HxCDF	57117449	0.533	4.57	0.533	pg/g	U	**U**	
1,2,3,7,8,9-HxCDD	19408743	1.03	4.57	1.03	pg/g	U	**U**	
1,2,3,7,8,9-HxCDF	72918219	0.896	4.57	0.896	pg/g	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.472	4.57	0.472	pg/g	U	**U**	
1,2,3,7,8-PeCDF	57117416	0.264	4.57	0.264	pg/g	U	**U**	
2,3,4,6,7,8-HxCDF	60851345	0.603	4.57	0.603	pg/g	U	**U**	
2,3,4,7,8-PeCDF	57117314	0.273	4.57	0.273	pg/g	U	**U**	
2,3,7,8-TCDD	1746016	0.394	0.913	0.394	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	0.353	0.913	0.353	pg/g	U	**U**	
OCDD	3268879	10.2	10.2	10.2	pg/g		**U**	**B, RL changed from 9.13 and MDL from 3.34**
OCDF	39001020	2.42	9.13	2.42	pg/g	U	**U**	
Total HpCDDs	37871004	3.68	4.57	1.13	pg/g	A	**J**	
Total HpCDFs	38998753	0.771	4.57	0.771	pg/g	U	**U**	
Total HxCDDs	34465468	1.03	4.57	1.03	pg/g	U	**U**	
Total HxCDFs	55684941	0.643	4.57	0.643	pg/g	U	**U**	
Total PeCDDs	36088229	0.472	4.57	0.472	pg/g	U	**U**	
Total PeCDFs	30402154	0.295	4.57	0.295	pg/g	U	**U**	
Total TCDDs	41903575	0.394	0.913	0.394	pg/g	U	**U**	
Total TCDFs	55722275	0.353	0.913	0.353	pg/g	U	**U**	

Analysis Method 1613B

Sample Name HZBS0083S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-15C **Sample Date:** 2/25/2009 8:51:00 AM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	8.03	4.72	1.41	pg/g			
1,2,3,4,6,7,8-HpCDF	67562394	2.94	4.72	0.758	pg/g	A	**J**	
1,2,3,4,7,8,9-HpCDF	55673897	1.15	4.72	1.15	pg/g	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	0.781	4.72	0.781	pg/g	U	**U**	
1,2,3,4,7,8-HxCDF	70648269	0.5	4.72	0.5	pg/g	U	**U**	
1,2,3,6,7,8-HxCDD	57653857	2.69	4.72	0.726	pg/g	A	**J**	
1,2,3,6,7,8-HxCDF	57117449	0.612	4.72	0.458	pg/g	A	**J**	
1,2,3,7,8,9-HxCDD	19408743	2.76	4.72	0.753	pg/g	A	**J**	
1,2,3,7,8,9-HxCDF	72918219	0.711	4.72	0.711	pg/g	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.613	4.72	0.613	pg/g	U	**U**	
1,2,3,7,8-PeCDF	57117416	0.353	4.72	0.353	pg/g	U	**U**	
2,3,4,6,7,8-HxCDF	60851345	0.585	4.72	0.519	pg/g	A	**J**	
2,3,4,7,8-PeCDF	57117314	0.74	4.72	0.74	pg/g	EMPC	**UJ**	***III**
2,3,7,8-TCDD	1746016	0.445	0.944	0.445	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	0.684	0.944	0.435	pg/g	A	**J**	***III**
OCDD	3268879	65.1	65.1	65.1	pg/g		**U**	**B, RL changed from 9.44 and MDL from 3.72**
OCDF	39001020	9.44	9.44	9.44	pg/g	A	**U**	**B, result changed from 7.18 and MDL from 2.96**
Total HpCDDs	37871004	28.6	4.72	1.41	pg/g			
Total HpCDFs	38998753	5.44	4.72	0.933	pg/g			
Total HxCDDs	34465468	8.59	4.72	0.75	pg/g			
Total HxCDFs	55684941	6.03	4.72	0.538	pg/g			
Total PeCDDs	36088229	0.613	4.72	0.613	pg/g	U	**U**	
Total PeCDFs	30402154	5.97	4.72	0.351	pg/g			
Total TCDDs	41903575	0.445	0.944	0.445	pg/g	U	**U**	
Total TCDFs	55722275	4.32	0.944	0.435	pg/g			

Analysis Method 1613B

Sample Name HZBS0094S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-16E **Sample Date:** 2/24/2009 12:58:00 PM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	4.52	4.62	1.39	pg/g	A	**J**	
1,2,3,4,6,7,8-HpCDF	67562394	3.94	4.62	0.779	pg/g	A	**J**	
1,2,3,4,7,8,9-HpCDF	55673897	1.18	4.62	1.18	pg/g	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	0.78	4.62	0.78	pg/g	U	**U**	
1,2,3,4,7,8-HxCDF	70648269	0.837	4.62	0.61	pg/g	A	**J**	
1,2,3,6,7,8-HxCDD	57653857	0.731	4.62	0.731	pg/g	U	**U**	
1,2,3,6,7,8-HxCDF	57117449	0.603	4.62	0.603	pg/g	U	**U**	
1,2,3,7,8,9-HxCDD	19408743	0.755	4.62	0.755	pg/g	U	**U**	
1,2,3,7,8,9-HxCDF	72918219	0.879	4.62	0.879	pg/g	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.559	4.62	0.559	pg/g	U	**U**	
1,2,3,7,8-PeCDF	57117416	0.387	4.62	0.387	pg/g	U	**U**	
2,3,4,6,7,8-HxCDF	60851345	0.656	4.62	0.656	pg/g	U	**U**	
2,3,4,7,8-PeCDF	57117314	0.863	4.62	0.418	pg/g	A	**J**	
2,3,7,8-TCDD	1746016	0.452	0.924	0.452	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	0.964	0.924	0.196	pg/g			
OCDD	3268879	37.9	37.9	37.9	pg/g		**U**	**B, RL changed from 9.24 and MDL from 3.4**
OCDF	39001020	9.24	9.24	9.24	pg/g	A	**U**	**B, result changed from 5.13 and MDL from 2.77**
Total HpCDDs	37871004	16.3	4.62	1.39	pg/g			
Total HpCDFs	38998753	5.4	4.62	0.961	pg/g			
Total HxCDDs	34465468	0.752	4.62	0.752	pg/g	U	**U**	
Total HxCDFs	55684941	3.63	4.62	0.678	pg/g	A	**J**	
Total PeCDDs	36088229	0.559	4.62	0.559	pg/g	U	**U**	
Total PeCDFs	30402154	5.49	4.62	0.402	pg/g			
Total TCDDs	41903575	0.452	0.924	0.452	pg/g	U	**U**	
Total TCDFs	55722275	0.924	0.924	0.683	pg/g	A	**J**	

Analysis Method 1613B

Sample Name HZBS0098S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-4D **Sample Date:** 3/20/2009 8:05:00 AM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	78.6	4.19	1.37	pg/g			
1,2,3,4,6,7,8-HpCDF	67562394	11.2	4.19	0.731	pg/g			
1,2,3,4,7,8,9-HpCDF	55673897	1.15	4.19	1.15	pg/g	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	1	4.19	0.651	pg/g	A	**J**	
1,2,3,4,7,8-HxCDF	70648269	0.511	4.19	0.447	pg/g	A	**J**	
1,2,3,6,7,8-HxCDD	57653857	2.01	4.19	0.63	pg/g	A	**J**	
1,2,3,6,7,8-HxCDF	57117449	0.431	4.19	0.431	pg/g	U	**U**	
1,2,3,7,8,9-HxCDD	19408743	2.07	4.19	0.642	pg/g	A	**J**	
1,2,3,7,8,9-HxCDF	72918219	0.621	4.19	0.621	pg/g	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.766	4.19	0.766	pg/g	EMPC	**UJ**	***III**
1,2,3,7,8-PeCDF	57117416	0.301	4.19	0.301	pg/g	U	**U**	
2,3,4,6,7,8-HxCDF	60851345	0.457	4.19	0.441	pg/g	A	**J**	
2,3,4,7,8-PeCDF	57117314	0.384	4.19	0.3	pg/g	A	**J**	
2,3,7,8-TCDD	1746016	0.41	0.838	0.41	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	0.433	0.838	0.433	pg/g	U	**U**	
OCDD	3268879	1120	8.38	2.24	pg/g			
OCDF	39001020	68.8	8.38	1.78	pg/g			
Total HpCDDs	37871004	308	4.19	1.37	pg/g			
Total HpCDFs	38998753	37.3	4.19	0.921	pg/g			
Total HxCDDs	34465468	18.6	4.19	0.639	pg/g			
Total HxCDFs	55684941	8.64	4.19	0.48	pg/g			
Total PeCDDs	36088229	0.508	4.19	0.508	pg/g	U	**U**	
Total PeCDFs	30402154	2.31	4.19	0.3	pg/g	A	**J**	
Total TCDDs	41903575	0.41	0.838	0.41	pg/g	U	**U**	
Total TCDFs	55722275	0.433	0.838	0.433	pg/g	U	**U**	

Analysis Method 1613B

Sample Name HZBS0098S002 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-5C **Sample Date:** 3/20/2009 2:00:00 PM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	4.55	4.34	1.03	pg/g			
1,2,3,4,6,7,8-HpCDF	67562394	0.807	4.34	0.683	pg/g	A	**J**	
1,2,3,4,7,8,9-HpCDF	55673897	0.974	4.34	0.974	pg/g	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	0.543	4.34	0.543	pg/g	U	**U**	
1,2,3,4,7,8-HxCDF	70648269	0.397	4.34	0.397	pg/g	U	**U**	
1,2,3,6,7,8-HxCDD	57653857	0.513	4.34	0.513	pg/g	U	**U**	
1,2,3,6,7,8-HxCDF	57117449	0.361	4.34	0.361	pg/g	U	**U**	
1,2,3,7,8,9-HxCDD	19408743	0.53	4.34	0.53	pg/g	U	**U**	
1,2,3,7,8,9-HxCDF	72918219	0.546	4.34	0.546	pg/g	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.419	4.34	0.419	pg/g	U	**U**	
1,2,3,7,8-PeCDF	57117416	0.266	4.34	0.266	pg/g	U	**U**	
2,3,4,6,7,8-HxCDF	60851345	0.387	4.34	0.387	pg/g	U	**U**	
2,3,4,7,8-PeCDF	57117314	0.266	4.34	0.266	pg/g	U	**U**	
2,3,7,8-TCDD	1746016	0.389	0.867	0.389	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	0.399	0.867	0.399	pg/g	U	**U**	
OCDD	3268879	46.6	46.6	46.6	pg/g		**U**	**B, RL changed from 8.67 and MDL from 2.77**
OCDF	39001020	8.67	8.67	8.67	pg/g	A	**U**	**B, result changed from 3.89 and MDL from 2.33**
Total HpCDDs	37871004	15.7	4.34	1.03	pg/g			
Total HpCDFs	38998753	1.61	4.34	0.816	pg/g	A	**J**	
Total HxCDDs	34465468	0.528	4.34	0.528	pg/g	U	**U**	
Total HxCDFs	55684941	0.417	4.34	0.417	pg/g	U	**U**	
Total PeCDDs	36088229	0.419	4.34	0.419	pg/g	U	**U**	
Total PeCDFs	30402154	0.294	4.34	0.294	pg/g	U	**U**	
Total TCDDs	41903575	0.389	0.867	0.389	pg/g	U	**U**	
Total TCDFs	55722275	0.399	0.867	0.399	pg/g	U	**U**	

Analysis Method 1613B

Sample Name HZBS0099S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-6C **Sample Date:** 3/20/2009 8:30:00 AM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	2740	4.34	2.77	pg/g	E	**R**	**D**
1,2,3,4,6,7,8-HpCDD	35822469	2730	4.26	3.95	pg/g	E	**J**	***III**
1,2,3,4,6,7,8-HpCDF	67562394	587	4.26	3.53	pg/g			
1,2,3,4,6,7,8-HpCDF	67562394	591	4.34	1.05	pg/g		**R**	**D**
1,2,3,4,7,8,9-HpCDF	55673897	32.5	4.34	1.5	pg/g		**R**	**D**
1,2,3,4,7,8,9-HpCDF	55673897	35.2	4.26	4.96	pg/g			
1,2,3,4,7,8-HxCDD	39227286	26.7	4.26	1.55	pg/g			
1,2,3,4,7,8-HxCDD	39227286	36	4.34	0.863	pg/g		**R**	**D**
1,2,3,4,7,8-HxCDF	70648269	42.9	4.26	7.35	pg/g			
1,2,3,4,7,8-HxCDF	70648269	34.7	4.34	1.62	pg/g		**R**	**D**
1,2,3,6,7,8-HxCDD	57653857	76.4	4.26	1.47	pg/g			
1,2,3,6,7,8-HxCDD	57653857	80.3	4.34	0.83	pg/g		**R**	**D**
1,2,3,6,7,8-HxCDF	57117449	29.1	4.34	1.47	pg/g		**R**	**D**
1,2,3,6,7,8-HxCDF	57117449	35.8	4.26	7.16	pg/g			
1,2,3,7,8,9-HxCDD	19408743	55.6	4.34	0.852	pg/g		**R**	**D**
1,2,3,7,8,9-HxCDD	19408743	50.1	4.26	1.52	pg/g			
1,2,3,7,8,9-HxCDF	72918219	9.7	4.34	1.93	pg/g		**R**	**D**
1,2,3,7,8,9-HxCDF	72918219	13.7	4.26	8.59	pg/g			
1,2,3,7,8-PeCDD	40321764	14.9	4.26	0.732	pg/g			
1,2,3,7,8-PeCDD	40321764	24.3	4.34	0.819	pg/g		**R**	**D**
1,2,3,7,8-PeCDF	57117416	14.1	4.26	2	pg/g			
1,2,3,7,8-PeCDF	57117416	10.9	4.34	0.689	pg/g		**R**	**D**
2,3,4,6,7,8-HxCDF	60851345	42.2	4.26	7.29	pg/g			
2,3,4,6,7,8-HxCDF	60851345	29.2	4.34	1.62	pg/g		**R**	**D**
2,3,4,7,8-PeCDF	57117314	26.5	4.26	1.97	pg/g			
2,3,4,7,8-PeCDF	57117314	15.8	4.34	0.65	pg/g		**R**	**D**
2,3,7,8-TCDD	1746016	4.15	0.868	0.448	pg/g		**R**	**D**
2,3,7,8-TCDD	1746016	3.11	0.853	0.382	pg/g			
2,3,7,8-TCDF	51207319	5.7	0.852	0.989	pg/g			
2,3,7,8-TCDF	51207319	0.798	0.867	0.798	pg/g	U	**R**	**D**
OCDD	3268879	23400	8.53	2.23	pg/g	E	**J**	***III**
OCDD	3268879	23100	8.68	1.28	pg/g	E	**R**	**D**
OCDF	39001020	4000	8.53	1.98	pg/g	E	**J**	***III**
OCDF	39001020	3230	8.68	1.09	pg/g		**R**	**D**

Analysis Method 1613B

Total HpCDDs	37871004	10400	4.26	3.95	pg/g			
Total HpCDDs	37871004	10400	4.34	2.77	pg/g		**R**	**D**
Total HpCDFs	38998753	1940	4.34	1.25	pg/g		**R**	**D**
Total HpCDFs	38998753	2010	4.26	4.18	pg/g			
Total HxCDDs	34465468	969	4.26	1.51	pg/g			
Total HxCDDs	34465468	1130	4.34	0.848	pg/g		**R**	**D**
Total HxCDFs	55684941	474	4.34	1.65	pg/g		**R**	**D**
Total HxCDFs	55684941	519	4.26	7.57	pg/g	DPE	**J**	***III**
Total PeCDDs	36088229	351	4.34	0.819	pg/g		**R**	**D**
Total PeCDDs	36088229	223	4.26	0.732	pg/g			
Total PeCDFs	30402154	201	4.34	0.669	pg/g		**R**	**D**
Total PeCDFs	30402154	267	4.26	1.98	pg/g	Q DPE	**J**	***III**
Total TCDDs	41903575	123	0.868	0.448	pg/g		**R**	**D**
Total TCDDs	41903575	76.2	0.853	0.382	pg/g			
Total TCDFs	55722275	121	0.868	1.09	pg/g		**R**	**D**
Total TCDFs	55722275	174	0.853	1.41	pg/g	Q DPE	**J**	***III**

Analysis Method 1613B

Sample Name HZBS0100S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-7C **Sample Date:** 3/20/2009 10:40:00 AM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	8.4	4.62	1.4	pg/g			
1,2,3,4,6,7,8-HpCDF	67562394	2.14	4.62	0.689	pg/g	A	**J**	
1,2,3,4,7,8,9-HpCDF	55673897	1.05	4.62	1.05	pg/g	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	0.851	4.62	0.851	pg/g	U	**U**	
1,2,3,4,7,8-HxCDF	70648269	0.562	4.62	0.562	pg/g	U	**U**	
1,2,3,6,7,8-HxCDD	57653857	0.792	4.62	0.792	pg/g	U	**U**	
1,2,3,6,7,8-HxCDF	57117449	0.544	4.62	0.544	pg/g	U	**U**	
1,2,3,7,8,9-HxCDD	19408743	0.823	4.62	0.823	pg/g	U	**U**	
1,2,3,7,8,9-HxCDF	72918219	0.794	4.62	0.794	pg/g	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.545	4.62	0.545	pg/g	U	**U**	
1,2,3,7,8-PeCDF	57117416	0.364	4.62	0.364	pg/g	U	**U**	
2,3,4,6,7,8-HxCDF	60851345	0.564	4.62	0.564	pg/g	U	**U**	
2,3,4,7,8-PeCDF	57117314	0.807	4.62	0.807	pg/g	EMPC	**UJ**	***III**
2,3,7,8-TCDD	1746016	0.385	0.924	0.385	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	0.772	0.924	0.516	pg/g	A	**J**	***III**
OCDD	3268879	81.3	81.3	81.3	pg/g		**U**	**B, RL changed from 9.24 and MDL from 3.09**
OCDF	39001020	9.24	9.24	9.24	pg/g	A	**U**	**B, result changed from 5.32 and MDL from 2.96**
Total HpCDDs	37871004	32.2	4.62	1.4	pg/g			
Total HpCDFs	38998753	4.29	4.62	0.852	pg/g	A	**J**	
Total HxCDDs	34465468	3.97	4.62	0.82	pg/g	A	**J**	
Total HxCDFs	55684941	3.45	4.62	0.608	pg/g	A	**J**	
Total PeCDDs	36088229	0.691	4.62	0.545	pg/g	A	**J**	
Total PeCDFs	30402154	5.98	4.62	0.368	pg/g			
Total TCDDs	41903575	0.385	0.924	0.385	pg/g	U	**U**	
Total TCDFs	55722275	5.33	0.924	0.516	pg/g	DPE	**J**	***III**

Analysis Method 1613B

Sample Name HZBS0101S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-8C **Sample Date:** 3/20/2009 10:00:00 AM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	3.22	4.29	1.4	pg/g	A	**J**	
1,2,3,4,6,7,8-HpCDF	67562394	2.09	4.29	0.774	pg/g	A	**J**	
1,2,3,4,7,8,9-HpCDF	55673897	1.19	4.29	1.19	pg/g	A	**J**	
1,2,3,4,7,8-HxCDD	39227286	0.815	4.29	0.815	pg/g	U	**U**	
1,2,3,4,7,8-HxCDF	70648269	0.832	4.29	0.587	pg/g	A	**J**	
1,2,3,6,7,8-HxCDD	57653857	0.767	4.29	0.767	pg/g	U	**U**	
1,2,3,6,7,8-HxCDF	57117449	0.851	4.29	0.478	pg/g	A	**J**	
1,2,3,7,8,9-HxCDD	19408743	0.792	4.29	0.792	pg/g	U	**U**	
1,2,3,7,8,9-HxCDF	72918219	0.923	4.29	0.827	pg/g	A	**J**	
1,2,3,7,8-PeCDD	40321764	0.615	4.29	0.615	pg/g	U	**U**	
1,2,3,7,8-PeCDF	57117416	0.676	4.29	0.355	pg/g	A	**J**	
2,3,4,6,7,8-HxCDF	60851345	0.583	4.29	0.583	pg/g	U	**U**	
2,3,4,7,8-PeCDF	57117314	0.384	4.29	0.384	pg/g	U	**U**	
2,3,7,8-TCDD	1746016	0.503	0.858	0.503	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	0.462	0.858	0.462	pg/g	U	**U**	
OCDD	3268879	24.9	24.9	24.9	pg/g		**U**	**B, RL changed from 8.58 and MDL from 3.58**
OCDF	39001020	8.58	8.58	8.58	pg/g	A	**U**	**B, result changed from 4.94 and MDL from 3.08**
Total HpCDDs	37871004	9.9	4.29	1.4	pg/g			
Total HpCDFs	38998753	3.27	4.29	0.964	pg/g	A	**J**	
Total HxCDDs	34465468	0.789	4.29	0.789	pg/g	U	**U**	
Total HxCDFs	55684941	2.61	4.29	0.607	pg/g	A	**J**	
Total PeCDDs	36088229	0.615	4.29	0.615	pg/g	U	**U**	
Total PeCDFs	30402154	0.676	4.29	0.369	pg/g	A	**J**	
Total TCDDs	41903575	0.503	0.858	0.503	pg/g	U	**U**	
Total TCDFs	55722275	0.462	0.858	0.462	pg/g	U	**U**	

Analysis Method 1613B

Sample Name HZBS0102S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-9C **Sample Date:** 3/20/2009 9:45:00 AM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	5.26	4.25	1.71	pg/g			
1,2,3,4,6,7,8-HpCDF	67562394	2.19	4.25	0.879	pg/g	A	**J**	
1,2,3,4,7,8,9-HpCDF	55673897	1.25	4.25	1.25	pg/g	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	0.613	4.25	0.613	pg/g	U	**U**	
1,2,3,4,7,8-HxCDF	70648269	0.4	4.25	0.4	pg/g	U	**U**	
1,2,3,6,7,8-HxCDD	57653857	0.584	4.25	0.584	pg/g	U	**U**	
1,2,3,6,7,8-HxCDF	57117449	0.379	4.25	0.379	pg/g	U	**U**	
1,2,3,7,8,9-HxCDD	19408743	0.601	4.25	0.601	pg/g	U	**U**	
1,2,3,7,8,9-HxCDF	72918219	0.629	4.25	0.629	pg/g	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.479	4.25	0.479	pg/g	U	**U**	
1,2,3,7,8-PeCDF	57117416	0.291	4.25	0.291	pg/g	U	**U**	
2,3,4,6,7,8-HxCDF	60851345	0.41	4.25	0.41	pg/g	U	**U**	
2,3,4,7,8-PeCDF	57117314	0.285	4.25	0.285	pg/g	U	**U**	
2,3,7,8-TCDD	1746016	0.351	0.85	0.351	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	0.445	0.85	0.445	pg/g	U	**U**	
OCDD	3268879	45.4	45.4	45.4	pg/g		**U**	**B, RL changed from 8.5 and MDL from 2.13**
OCDF	39001020	8.5	8.5	8.5	pg/g	A	**U**	**B, result changed from 4.53 and MDL from 1.61**
Total HpCDDs	37871004	16.1	4.25	1.71	pg/g			
Total HpCDFs	38998753	3.87	4.25	1.05	pg/g	A	**J**	
Total HxCDDs	34465468	0.884	4.25	0.598	pg/g	A	**J**	
Total HxCDFs	55684941	1.03	4.25	0.445	pg/g	A	**J**	
Total PeCDDs	36088229	0.479	4.25	0.479	pg/g	U	**U**	
Total PeCDFs	30402154	1.17	4.25	0.308	pg/g	A	**J**	
Total TCDDs	41903575	0.351	0.85	0.351	pg/g	U	**U**	
Total TCDFs	55722275	0.445	0.85	0.445	pg/g	U	**U**	

Analysis Method 1613B

Sample Name HZBS0103S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-10C **Sample Date:** 3/20/2009 9:20:00 AM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	4.86	4.61	1.19	pg/g			
1,2,3,4,6,7,8-HpCDF	67562394	1.21	4.61	0.708	pg/g	A	**J**	
1,2,3,4,7,8,9-HpCDF	55673897	1.12	4.61	1.12	pg/g	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	0.835	4.61	0.835	pg/g	U	**U**	
1,2,3,4,7,8-HxCDF	70648269	0.46	4.61	0.46	pg/g	U	**U**	
1,2,3,6,7,8-HxCDD	57653857	0.816	4.61	0.816	pg/g	U	**U**	
1,2,3,6,7,8-HxCDF	57117449	0.463	4.61	0.463	pg/g	U	**U**	
1,2,3,7,8,9-HxCDD	19408743	0.899	4.61	0.829	pg/g	A	**J**	
1,2,3,7,8,9-HxCDF	72918219	0.685	4.61	0.685	pg/g	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.58	4.61	0.58	pg/g	U	**U**	
1,2,3,7,8-PeCDF	57117416	0.351	4.61	0.351	pg/g	U	**U**	
2,3,4,6,7,8-HxCDF	60851345	0.492	4.61	0.492	pg/g	U	**U**	
2,3,4,7,8-PeCDF	57117314	0.376	4.61	0.341	pg/g	A	**J**	
2,3,7,8-TCDD	1746016	0.39	0.922	0.39	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	0.488	0.922	0.488	pg/g	U	**U**	
OCDD	3268879	34.7	34.7	34.7	pg/g		**U**	**B, RL changed from 9.22 and MDL from 3.03**
OCDF	39001020	9.22	9.22	9.22	pg/g	A	**U**	**B, result changed from 2.88 and MDL from 2.75**
Total HpCDDs	37871004	16.8	4.61	1.19	pg/g			
Total HpCDFs	38998753	2.19	4.61	0.895	pg/g	A	**J**	
Total HxCDDs	34465468	1.94	4.61	0.826	pg/g	A	**J**	
Total HxCDFs	55684941	1.23	4.61	0.518	pg/g	A	**J**	
Total PeCDDs	36088229	0.583	4.61	0.58	pg/g	A	**J**	
Total PeCDFs	30402154	2.84	4.61	0.346	pg/g	A	**J**	
Total TCDDs	41903575	0.39	0.922	0.39	pg/g	U	**U**	
Total TCDFs	55722275	0.854	0.922	0.488	pg/g	A	**J**	

Analysis Method 1613B

Sample Name HZBS0104S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: G341-574-11C **Sample Date:** 3/20/2009 11:00:00 AM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822469	135	4.34	1.82	pg/g			
1,2,3,4,6,7,8-HpCDF	67562394	6.38	4.34	0.858	pg/g			
1,2,3,4,7,8,9-HpCDF	55673897	1.29	4.34	1.29	pg/g	U	**U**	
1,2,3,4,7,8-HxCDD	39227286	1.2	4.34	0.8	pg/g	A	**J**	
1,2,3,4,7,8-HxCDF	70648269	1.29	4.34	0.642	pg/g	A	**J**	
1,2,3,6,7,8-HxCDD	57653857	2.92	4.34	0.795	pg/g	A	**J**	
1,2,3,6,7,8-HxCDF	57117449	1.04	4.34	0.622	pg/g	A	**J**	
1,2,3,7,8,9-HxCDD	19408743	2.75	4.34	0.8	pg/g	A	**J**	
1,2,3,7,8,9-HxCDF	72918219	0.867	4.34	0.867	pg/g	U	**U**	
1,2,3,7,8-PeCDD	40321764	0.584	4.34	0.584	pg/g	EMPC	**UJ**	***III**
1,2,3,7,8-PeCDF	57117416	0.909	4.34	0.522	pg/g	A	**J**	
2,3,4,6,7,8-HxCDF	60851345	0.863	4.34	0.863	pg/g	EMPC	**UJ**	***III**
2,3,4,7,8-PeCDF	57117314	1.44	4.34	0.5	pg/g	A	**J**	
2,3,7,8-TCDD	1746016	0.413	0.869	0.413	pg/g	U	**U**	
2,3,7,8-TCDF	51207319	1.41	0.869	0.213	pg/g			
OCDD	3268879	1250	8.69	2.71	pg/g			
OCDF	39001020	13.4	13.4	13.4	pg/g		**U**	**B, RL changed from 8.69 and MDL from 2.54**
Total HpCDDs	37871004	536	4.34	1.82	pg/g			
Total HpCDFs	38998753	17	4.34	1.05	pg/g			
Total HxCDDs	34465468	36.5	4.34	0.797	pg/g			
Total HxCDFs	55684941	14.1	4.34	0.688	pg/g			
Total PeCDDs	36088229	8.53	4.34	0.487	pg/g			
Total PeCDFs	30402154	17.1	4.34	0.511	pg/g			
Total TCDDs	41903575	3.71	0.869	0.413	pg/g			
Total TCDFs	55722275	19.3	0.869	0.584	pg/g			

Analysis Method 6020

Sample Name HZBS0077S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: 226636014 **Sample Date:** 2/25/2009 10:16:00 AM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439921	13.9	0.445	0.111	mg/kg			

Sample Name HZBS0079S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: 226636016 **Sample Date:** 2/24/2009 9:21:00 AM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Lead	7439921	16.2	0.451	0.113	mg/kg			

Sample Name HZBS0094S001 **Matrix Type:** Soil **Result Type:** Primary Result

Lab Sample Name: 226636017 **Sample Date:** 2/24/2009 12:58:00 PM **Validation Level:** V

Matrix Type: Soil

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440382	4.7	1.26	0.379	mg/kg			
Cadmium	7440439	0.32	0.253	0.0253	mg/kg			
Copper	7440508	14.8	0.253	0.0506	mg/kg	EN	**J**	**Q, A**
Lead	7439921	9.5	0.506	0.126	mg/kg			