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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

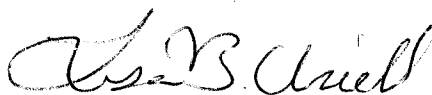
ANALYTICAL REPORT

Boeing SSFL – ISRA

Lot D9B250253

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TestAmerica Laboratories, Inc.



Lisa B. Uriell
Project Manager

March 20, 2009

Case Narrative

Enclosed is the report for one sample received at TestAmerica Laboratories, Inc. – Denver laboratory on February 25, 2009. The results included in this report relate only to the sample in this report and has been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than Denver's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The sample presented in this report was analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D9B250253

Sample Receiving

The cooler temperature for the sample received on February 25, 2009, at the Denver laboratory was 2.9°C. All sample containers were received in acceptable condition.

Sample HZBS0090S001SP was received at the laboratory on February 25, 2009, with an unassociated chain-of-custody intended for another Laboratory. The client was notified and provided the correct Chain of Custody, received via email transmission on February 25, 2009. The hard copy of the Chain of Custody was received on February 26, 2009. Both the Chain of Custody received via email and the Chain of Custody received via US Mail have been included.

The requested Dioxin/Furan analyses were performed at TestAmerica's Knoxville laboratory located at 8515 Middlebrook Pike, Knoxville, TN 37921.

Dioxin – SW846 Method 8290

Several results are reported at the maximum possible concentration in several samples. These results have been flagged with "Q", and should be considered estimated.

Low levels of 1,2,3,7,8-PeCDD, Total PeCDD, 1,2,3,7,8,9-HxCDD, Total HxCDD, 1,2,3,4,6,7,8-HpCDD, Total HpCDD, OCDD, 1,2,3,7,8-PeCDF, Total PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, Total HxCDF, 1,2,3,4,6,7,8-HpCDF, Total HpCDF and OCDF were detected in the method blank associated with QC batch 9068200. However, because the concentrations in the method blank were not present at levels greater than one half the reporting limits, corrective action was deemed unnecessary.

Dioxin – SW846 Method 8290 (cont.)

Matrix Spike analysis for QC batch 9068200 was performed on sample HZBS0090S001SP (D9B250253-001). All spike parameters were within QC control limits.

The matrix spike duplicate, HZBS0090S001SP, exhibited no internal standard, native standard or clean up standard recoveries. The extract was lost during the column clean up step. The matrix spike and laboratory control sample met all QC requirements. The incident was confined to the MSD. All other samples exhibited recoveries which were within limits. The data was reported as is with no adverse effect to data quality.

All QC criteria were met.

The following flags are used to qualify results for chlorinated dioxin and furan results:

J – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is “the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point”. The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report the ML is qualitatively defined as described above, and quantitatively defined as follows: Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

E – The reported result is an estimate. The amount reported is above the UCL described below. The E qualifier is applied on the basis of the Upper Calibration Level (UCL). The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

B – The analyte is present in the associated method blank at a reportable level. For this analysis, there is no method specified reporting level, other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of 2.5-to-1. Therefore, the presence of any amount of the analyte present in the blank will result a B qualifier on all associated samples.

If the blank has analytes present above the ML (described above) the need for corrective action beyond qualifying the associated data is evaluated. The determination is made whether the amount in the blank is less than 5% of the lowest amount in associated client samples or regulatory limit. If this is the case, sample processing may continue with the qualification of the data. If the amount in the blank is greater than 5% of the lowest amount in associated client samples or regulatory limit, corrective action must be taken.

The corrective actions may include extracting a second aliquot of sample if available, or notifying the client to assess the impact on the project objectives.

Note: Some laboratories do not report contamination in the blank unless it is above their lower calibration limit, or an established percentage of the level in the samples, or an established percentage of the regulatory limit. Likewise, some laboratories set a reporting limit at one half the lower calibration limit.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. The criteria include the following areas:

Dioxin – SW846 Method 8290 (cont.)

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio.)
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity, due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and TMDL evaluations frequently use qualified data reported as low as the MDL, or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL^{1,2,3}. The EDL is based on a direct measurement of the signal-to-noise ratio acquired during sample analysis. This s/n measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the s/n obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample, than is an MDL run periodically on a reference matrix.

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often more accurate than the assumption is that contamination is present at the DL or ML. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

In sample data, peaks must have an intensity of 2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above, and a bit of high school algebra reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 X the noise on the calibration. This is the result of normal variability. Because the source method for the EDL (SW-846 8290 and 8280A) does not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

No other anomalies were observed.

D9B250253

Total Metals – SW846 Methods 6020

Low levels of Zinc were detected in the method blank associated with QC batch 9058236. However, because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary.

Matrix spike analyses for Method 6020 QC batch 9058236 were performed on a sample from another lot, and were in control.

Post digestion spike analysis for Method 6020, QC batch 9058236 was performed on a sample from another lot. All spike parameters were within QC control limits.

The Serial Dilution analysis for Method 6020 QC batch 9058236 was performed on a sample from another lot, and was in control.

No other anomalies were observed.

General Chemistry – Method ASTM D 2216-90

The duplicate analysis for Percent Moisture (batch 9057178) was performed on sample HZBS0090S001SP (D9B250253-001) and was in control.

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9B250253

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
HZBS0090S001SP 02/24/09 10:09 001				
1,2,3,6,7,8-HxCDD	0.33 Q,J	2.8	ng/kg	EPA-5 1613B
1,2,3,7,8,9-HxCDD	0.24	2.8	ng/kg	EPA-5 1613B
	Qualifiers: Q,B,J			
Total HxCDD	1.7 Q,J,B	2.8	ng/kg	EPA-5 1613B
1,2,3,4,6,7,8-HpCDD	5.4 B	2.8	ng/kg	EPA-5 1613B
Total HpCDD	14 B	2.8	ng/kg	EPA-5 1613B
OCDD	72 B	5.5	ng/kg	EPA-5 1613B
Total PeCDF	0.80 J,Q	2.8	ng/kg	EPA-5 1613B
1,2,3,4,7,8-HxCDF	0.16 B,J	2.8	ng/kg	EPA-5 1613B
1,2,3,6,7,8-HxCDF	0.14 Q,J	2.8	ng/kg	EPA-5 1613B
Total HxCDF	1.3 J,B,Q	2.8	ng/kg	EPA-5 1613B
1,2,3,4,6,7,8-HpCDF	0.96 B,J	2.8	ng/kg	EPA-5 1613B
Total HpCDF	2.0 Q,J,B	2.8	ng/kg	EPA-5 1613B
OCDF	2.1 B,J	5.5	ng/kg	EPA-5 1613B
Lead	7.4	0.44	mg/kg	SW846 6020
Zinc	60 B	5.5	mg/kg	SW846 6020
Percent Moisture	9.3	0.10	%	ASTM D 2216-90

METHODS SUMMARY

D9B250253

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B	EPA-5 1613
ICP-MS (6020)	SW846 6020	SW846 3050B
Method for Determination of Water Content of Soil	ASTM D 2216-90	ASTM D2216-90

References:

- ASTM Annual Book Of ASTM Standards.
- EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and
Furans by Isotope Dilution, HRGC/HRMS, Revision B",
EPA, OCTOBER 1994
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9B250253

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
ASTM D 2216-90	Reva M. Golden	010906
EPA-5 1613B	Melissa A. Davidson	010265
SW846 6020	Thomas Lill	6929

References:

ASTM Annual Book Of ASTM Standards.

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and
Furans by Isotope Dilution, HRGC/HRMS, Revision B",
EPA, OCTOBER 1994

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9B250253

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
K7PPA	001	HZBS0090S001SP	02/24/09	10:09

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

D9B250253

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SO	EPA-5 1613B		9068200	9068130
	SO	SW846 6020		9058236	9058147
	SO	ASTM D 2216-90		9057178	9057102

TestAmerica

Dioxins & Furans

CLP-Like Forms

Lot ID: D9B250253

Client: MWH Americas, Inc. – Boeing

Method: SW846 1613B

Associated Sample: 001

Batch: 9068200

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9B250253
Matrix: SOLID
% Moisture: 9.3
Basis: Dry
Analysis Method: 1613B
Unit: ng/kg
QC Batch ID: 9068200
Sample Aliquot: 20 g
Dilution Factor: 1

Client Sample ID: HZBS0090S001SP
Lab Sample ID: D9B250253-001
Lab WorkOrder: K7PPA2AE
Date/Time Collected: 02/24/09 10:09
Date/Time Received: 02/25/09 09:00
Date Leached:
Date/Time Extracted: 03/09/09 16:00
Date/Time Analyzed: 03/13/09 18:10
Instrument ID: M2A

CAS No.	Analyte	Conc.	EDL	RL	Q
35822-46-9	1,2,3,4,6,7,8-HpCDD	5.4	0.24	2.8	B
67562-39-4	1,2,3,4,6,7,8-HpCDF	0.96	0.13	2.8	BJ
55673-89-7	1,2,3,4,7,8,9-HpCDF	0.21	0.21	2.8	U
39227-28-6	1,2,3,4,7,8-HxCDD	0.14	0.14	2.8	U
70648-26-9	1,2,3,4,7,8-HxCDF	0.16	0.085	2.8	BJ
57653-85-7	1,2,3,6,7,8-HxCDD	0.33	0.16	2.8	QJ
57117-44-9	1,2,3,6,7,8-HxCDF	0.14	0.080	2.8	QJ
19408-74-3	1,2,3,7,8,9-HxCDD	0.24	0.14	2.8	QBJ
72918-21-9	1,2,3,7,8,9-HxCDF	0.12	0.12	2.8	U
40321-76-4	1,2,3,7,8-PeCDD	0.18	0.18	2.8	U
57117-41-6	1,2,3,7,8-PeCDF	0.13	0.13	2.8	U
60851-34-5	2,3,4,6,7,8-HxCDF	0.092	0.092	2.8	U
57117-31-4	2,3,4,7,8-PeCDF	0.11	0.11	2.8	U
1746-01-6	2,3,7,8-TCDD	0.36	0.36	0.55	U
51207-31-9	2,3,7,8-TCDF	0.24	0.24	0.55	U
3268-87-9	OCDD	72	0.23	5.5	B
39001-02-0	OCDF	2.1	0.20	5.5	BJ
37871-00-4	Total HpCDD	14	0.24	2.8	B
38998-75-3	Total HpCDF	2.0	0.16	2.8	QJB
34465-46-8	Total HxCDD	1.7	0.15	2.8	QJB
55684-94-1	Total HxCDF	1.3	0.092	2.8	JBQ
36088-22-9	Total PeCDD	0.18	0.18	2.8	U
30402-15-4	Total PeCDF	0.80	0.12	2.8	JQ
41903-57-5	Total TCDD	0.36	0.36	0.55	U
55722-27-5	Total TCDF	0.24	0.24	0.55	U

MWH Americas, Inc.

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9B250253
Matrix: SOLID
% Moisture: 9.3
Basis: Dry
Analysis Method: 1613B
Unit: ng/kg
QC Batch ID: 9068200
Sample Aliquot: 20 g
Dilution Factor: 1

Client Sample ID: HZBS0090S001SP
Lab Sample ID: D9B250253-001
Lab WorkOrder: K7PPA2AE
Date/Time Collected: 02/24/09 10:09
Date/Time Received: 02/25/09 09:00
Date Leached:
Date/Time Extracted: 03/09/09 16:00
Date/Time Analyzed: 03/13/09 18:10
Instrument ID: M2A

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
85508-50-5	37Cl4-2,3,7,8-TCDD	81	35	197	

TestAmerica

Total Metals

CLP-Like Forms

Lot ID: D9B250253

Client: MWH Americas, Inc. – Boeing

Method: SW846 6020

Associated Sample: 001

Total Metals Analysis
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: MWH Americas, Inc. SDG No.: D9B250253
Lab Code: _____ Case No.: _____ SAS No.: _____
SOW No.: _____

Sample ID. Lab Sample No.
HZBS0090S001SP D9B250253-001

Were ICP interelement corrections applied? Yes/No YES
Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins Name: Janice Collins
Date: 3/19/09 Title: Metals Analyst

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9B250253
Matrix: SOLID
% Moisture: 9.3
Basis: Dry

Client Sample ID: HZBS0090S001SP
Lab Sample ID: D9B250253-001
Lab WorkOrder: K7PPA
Date/Time Collected: 02/24/09 10:09
Date/Time Received: 02/25/09 09:00

CAS No.	Analyte	Conc.	MDL	RL	Units	Q	Method
7439-92-1	Lead	7.4	0.020	0.44	mg/kg		6020
7440-66-6	Zinc	60	0.35	5.5	mg/kg	B	6020

TestAmerica

General Chemistry

Standard LIMS Report

Lot ID: D9B250253

Client: MWH Americas, Inc. – Boeing

Methods: ASTM D 2216-90

Associated Sample: 001

MWH Americas, Inc.

Client Sample ID: HZBS0090S001SP

General Chemistry

Lot-Sample #....: D9B250253-001 Work Order #....: K7PPA Matrix.....: SO
Date Sampled....: 02/24/09 10:09 Date Received...: 02/25/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	9.3	0.10	%	ASTM D 2216-90	02/26/09	9057178
		Dilution Factor: 1		Analysis Time...: 13:00	MDL.....: 0.0	

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ICPMS Metals Raw Data	35
Wet Chemistry Raw Data	119
% Moisture	119
Total Number of Pages in this Package	122

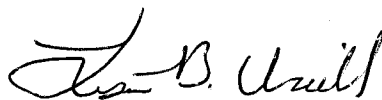
ANALYTICAL REPORT

Boeing SSFL – ISRA

Lot D9B260297

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2121 N. California Blvd.
Suite 600
Walnut Creek, CA 94596

TestAmerica Laboratories, Inc.



Lisa B. Uriell
Project Manager

March 9, 2009

Case Narrative

Enclosed is the report for two samples received at TestAmerica Laboratories, Inc. – Denver laboratory on February 26, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than Denver's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

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Quality Control Summary for Lot D9B260297

Sample Receiving

The cooler temperature for the sample received on February 26, 2009, at the Denver laboratory was 2.9°C. All sample containers were received in acceptable condition.

Total Metals – SW846 Methods 6020

Low levels of Copper and Zinc were detected in the method blank associated with QC batch 9058236. However, because the concentrations in the method blank were not present at levels greater than one half the reporting limits, corrective action was deemed unnecessary.

Matrix spike analyses for Method 6020 QC batch 9058236 were performed on a sample from another lot, and were in control.

Post digestion spike analysis for Method 6020, QC batch 9058236 was performed on a sample from another lot. All spike parameters were within QC control limits.

The Serial Dilution analysis for Method 6020 QC batch 9058236 was performed on a sample from another lot, and was in control.

No other anomalies were observed.

General Chemistry – Method ASTM D 2216-90

The duplicate analysis for Percent Moisture (batch 9061148) was performed on a sample from another lot and was in control.

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9B260297

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
HZBS0071S001SP 02/25/09 13:06 001				
Cadmium	0.38	0.24	mg/kg	SW846 6020
Lead	11	0.47	mg/kg	SW846 6020
Zinc	45 B	5.9	mg/kg	SW846 6020
Percent Moisture	16	0.10	%	ASTM D 2216-90
HZBS0085S001SP 02/25/09 12:00 002				
Arsenic	5.4	0.55	mg/kg	SW846 6020
Cadmium	0.48	0.22	mg/kg	SW846 6020
Copper	17 B	0.22	mg/kg	SW846 6020
Lead	42	0.44	mg/kg	SW846 6020
Percent Moisture	8.8	0.10	%	ASTM D 2216-90

METHODS SUMMARY

D9B260297

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
ICP-MS (6020) Method for Determination of Water Content of Soil	SW846 6020 ASTM D 2216-90	SW846 3050B ASTM D2216-90

References:

ASTM Annual Book Of ASTM Standards.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9B260297

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
ASTM D 2216-90	Reva M. Golden	010906
SW846 6020	Thomas Lill	6929

References:

ASTM Annual Book Of ASTM Standards.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9B260297

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
K7RRE	001	HZBS0071S001SP	02/25/09	13:06
K7RRL	002	HZBS0085S001SP	02/25/09	12:00

NOTE (S) :

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- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

D9B260297

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SO	SW846 6020		9058236	9058147
	SO	ASTM D 2216-90		9061148	9061093
002	SO	SW846 6020		9058236	9058147
	SO	ASTM D 2216-90		9061148	9061093

TestAmerica

Total Metals

CLP-Like Forms

Lot ID: D9B260297

Client: MWH Americas, Inc. – Boeing

Method: SW846 6020

Associated Samples: 001 and 002

Total Metals Analysis
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: MWH Americas, Inc. SDG No.: D9B260297
Lab Code: _____ Case No.: _____ SAS No.: _____
SOW No.: _____

<u>Sample ID.</u>	<u>Lab Sample No.</u>
<u>HZBS0071S001SP</u>	<u>D9B260297-001</u>
<u>HZBS0085S001SP</u>	<u>D9B260297-002</u>

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: *Janice Collins* Name: Janice Collins

Date: 3/9/09 Title: Metals Analyst

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9B260297
Matrix: SOLID
% Moisture: 16
Basis: Dry

Client Sample ID: HZBS0071S001SP
Lab Sample ID: D9B260297-001
Lab WorkOrder: K7RRE
Date/Time Collected: 02/25/09 13:06
Date/Time Received: 02/26/09 09:15

CAS No.	Analyte	Conc.	MDL	RL	Units	Q	Method
7440-43-9	Cadmium	0.38	0.011	0.24	mg/kg		6020
7439-92-1	Lead	11	0.022	0.47	mg/kg		6020
7440-66-6	Zinc	45	0.37	5.9	mg/kg	B	6020

TestAmerica

General Chemistry

Standard LIMS Report

Lot ID: D9B260297

Client: MWH Americas, Inc. – Boeing

Methods: ASTM D 2216-90

Associated Samples: 001 and 002

MWH Americas, Inc.

Client Sample ID: HZBS0071S001SP

General Chemistry

Lot-Sample #....: D9B260297-001 Work Order #....: K7RRE Matrix.....: SO
Date Sampled....: 02/25/09 13:06 Date Received...: 02/26/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	16	0.10	%	ASTM D 2216-90	03/02/09	9061148
		Dilution Factor: 1		Analysis Time...: 13:00	MDL.....: 0.0	

MWH Americas, Inc.

Client Sample ID: HZBS0085S001SP

General Chemistry

Lot-Sample #....: D9B260297-002 Work Order #....: K7RRL Matrix.....: SO
Date Sampled....: 02/25/09 12:00 Date Received...: 02/26/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	8.8	0.10	%	ASTM D 2216-90	03/02/09	9061148
		Dilution Factor: 1		Analysis Time...: 13:00	MDL.....: 0.0	

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Boeing SSFL – ISRA

Lot D9F020257

Sarah VonRaesfeld
MWH Americas, Inc.
2121 N. California Blvd.
Suite 600
Walnut Creek, CA 94596

TestAmerica Laboratories, Inc.



Lisa B. Uriell
Project Manager

June 30, 2009

Case Narrative

Enclosed is the report for one sample received at TestAmerica Laboratories, Inc. – Denver laboratory on June 2, 2009. The results included in this report relate only to the sample in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than Denver's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The sample presented in this report was analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

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Quality Control Summary for Lot D9F020257

Sample Receiving

The cooler temperature for the sample received on June 2, 2009, at the Denver laboratory was 4.3°C. All sample containers were received in acceptable condition.

The requested Dioxin/Furan analysis was performed at TestAmerica's Knoxville laboratory located at 8515 Middlebrook Pike, Knoxville, TN 37921.

Dioxin – SW846 Method 1613B

Several results are reported at the maximum possible concentration in several samples. These results have been flagged with "Q", and should be considered estimated.

Low levels of OCDD, 1,2,3,7,8,9-HxCDF, Total HxCDF and OCDF were detected in the method blank associated with QC batch 9155120. However, because the concentrations in the method blank were not present at levels greater than one half the reporting limits, corrective action was deemed unnecessary.

Matrix Spike analysis for QC batch 9155120 was performed on sample HZBS0124S001SP (D9F020257-001). All spike parameters were within QC control limits.

All QC criteria were met.

The following flags are used to qualify results for chlorinated dioxin and furan results:

Dioxin – SW846 Method 1613B (cont.)

J – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is “the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point”. The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report the ML is qualitatively defined as described above, and quantitatively defined as follows: Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

E – The reported result is an estimate. The amount reported is above the UCL described below. The E qualifier is applied on the basis of the Upper Calibration Level (UCL). The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

B – The analyte is present in the associated method blank at a reportable level. For this analysis, there is no method specified reporting level, other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of 2.5-to-1. Therefore, the presence of any amount of the analyte present in the blank will result a B qualifier on all associated samples.

If the blank has analytes present above the ML (described above) the need for corrective action beyond qualifying the associated data is evaluated. The determination is made whether the amount in the blank is less than 5% of the lowest amount in associated client samples or regulatory limit. If this is the case, sample processing may continue with the qualification of the data. If the amount in the blank is greater than 5% of the lowest amount in associated client samples or regulatory limit, corrective action must be taken.

The corrective actions may include extracting a second aliquot of sample if available, or notifying the client to assess the impact on the project objectives.

Note: Some laboratories do not report contamination in the blank unless it is above their lower calibration limit, or an established percentage of the level in the samples, or an established percentage of the regulatory limit. Likewise, some laboratories set a reporting limit at one half the lower calibration limit.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. The criteria include the following areas:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio.)
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity, due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer

X – Other. See explanation in narrative.

Dioxin – SW846 Method 1613B (cont.)

Laboratory studies supporting risk assessment and TMDL evaluations frequently use qualified data reported as low as the MDL, or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL^{1,2,3}. The EDL is based on a direct measurement of the signal-to-noise ratio acquired during sample analysis. This s/n measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the s/n obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample, than is an MDL run periodically on a reference matrix.

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often more accurate than the assumption is that contamination is present at the DL or ML. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

In sample data, peaks must have an intensity of 2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above, and a bit of high school algebra reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 X the noise on the calibration. This is the result of normal variability. Because the source method for the EDL (SW-846 8290 and 8280A) does not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

No other anomalies were observed.

Total Metals – SW846 Methods 6020

Matrix spike analyses for Method 6020 QC batch 9159169 were performed on a sample from another lot, and were in control.

Post digestion spike analysis for Method 6020, QC batch 9159169 was performed on a sample from another lot. All spike parameters were within QC control limits.

The Serial Dilution analysis for Method 6020 QC batch 9159169 was performed on a sample from another lot, and was in control.

No anomalies were observed.

General Chemistry – Method ASTM D 2216-90

The duplicate analysis for Percent Moisture (batch 9154206) was performed on sample HZBS0124S001SP (D9F020257-001) and was in control.

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9F020257

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
HZBS0124S001SP 06/01/09 10:58 001				
1,2,3,6,7,8-HxCDD	0.19 Q,J	5.0	pg/g	EPA-5 1613B
1,2,3,7,8,9-HxCDD	0.25 J	5.0	pg/g	EPA-5 1613B
Total HxCDD	1.5 Q,J	5.0	pg/g	EPA-5 1613B
1,2,3,4,6,7,8-HpCDD	2.8 J	5.0	pg/g	EPA-5 1613B
Total HpCDD	7.6 J	5.0	pg/g	EPA-5 1613B
OCDD	23 B	10	pg/g	EPA-5 1613B
2,3,7,8-TCDF	0.15 Q,J	1.0	pg/g	EPA-5 1613B
Total TCDF	2.1 J,Q	1.0	pg/g	EPA-5 1613B
2,3,4,7,8-PeCDF	0.15 J	5.0	pg/g	EPA-5 1613B
Total PeCDF	2.2 J,Q	5.0	pg/g	EPA-5 1613B
1,2,3,4,7,8-HxCDF	0.15 J	5.0	pg/g	EPA-5 1613B
1,2,3,6,7,8-HxCDF	0.091 Q,J	5.0	pg/g	EPA-5 1613B
Total HxCDF	1.6 B,J,Q	5.0	pg/g	EPA-5 1613B
1,2,3,4,6,7,8-HpCDF	0.69 Q,J	5.0	pg/g	EPA-5 1613B
Total HpCDF	1.6 J,Q	5.0	pg/g	EPA-5 1613B
OCDF	1.4 B,J	10	pg/g	EPA-5 1613B
Copper	8.1	0.20	mg/kg	SW846 6020
Lead	12	0.40	mg/kg	SW846 6020
Percent Moisture	1.1	0.10	%	ASTM D 2216-90

METHODS SUMMARY

D9F020257

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B	EPA-5 1613
ICP-MS (6020)	SW846 6020	SW846 3050B
Method for Determination of Water Content of Soil	ASTM D 2216-90	ASTM D2216-90

References:

- ASTM Annual Book Of ASTM Standards.
- EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and
Furans by Isotope Dilution, HRGC/HRMS, Revision B",
EPA, OCTOBER 1994
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9F020257

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
ASTM D 2216-90	Reva M. Golden	010906
EPA-5 1613B	Patricia (Trish) M. Parsly	050655
SW846 6020	Thomas Lill	6929

References:

ASTM Annual Book Of ASTM Standards.

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and
Furans by Isotope Dilution, HRGC/HRMS, Revision B",
EPA, OCTOBER 1994

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9F020257

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LD63G	001	HZBS0124S001SP	06/01/09	10:58

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

D9F020257

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SO	EPA-5 1613B		9155120	9155207
	SO	SW846 6020		9159169	9159127
	SO	ASTM D 2216-90		9154206	9155218

TestAmerica

Dioxins & Furans

CLP-Like Forms

Lot ID: D9F020257

Client: MWH Americas, Inc. – Boeing

Method: SW846 1613B

Associated Sample: 001

Batch: 9155120

MWH Americas, Inc.
Sample ID: HZBS0124S001SP
Trace Level Organic Compounds

Lot - Sample #....:	D9F020257 - 001	Work Order #....:	LD63G1AE	Matrix....:	SO
Date Sampled....:	06/01/09	Date Received....:	06/02/09	Dilution Factor:	1
Prep Date....:	06/04/09	Analysis Date....:	06/27/09	Percent Moisture:	1.1
Prep Batch #:	9155120				
Initial Wgt/Vol :	10.1 g	Instrument ID....:	M2A	Method:	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.19	pg/g
Total TCDD	ND		1.0	0.19	pg/g
1,2,3,7,8-PeCDD	ND		5.0	0.11	pg/g
Total PeCDD	ND		5.0	0.11	pg/g
1,2,3,4,7,8-HxCDD	ND		5.0	0.072	pg/g
1,2,3,6,7,8-HxCDD	0.19	Q J	5.0	0.086	pg/g
1,2,3,7,8,9-HxCDD	0.25	J	5.0	0.073	pg/g
Total HxCDD	1.5	Q J	5.0	0.076	pg/g
1,2,3,4,6,7,8-HpCDD	2.8	J	5.0	0.12	pg/g
Total HpCDD	7.6	J	5.0	0.12	pg/g
OCDD	23	B	10	0.19	pg/g
2,3,7,8-TCDF	0.15	Q J	1.0	0.13	pg/g
Total TCDF	2.1	J Q	1.0	0.13	pg/g
1,2,3,7,8-PeCDF	ND		5.0	0.081	pg/g
2,3,4,7,8-PeCDF	0.15	J	5.0	0.069	pg/g
Total PeCDF	2.2	J Q	5.0	0.075	pg/g
1,2,3,4,7,8-HxCDF	0.15	J	5.0	0.045	pg/g
1,2,3,6,7,8-HxCDF	0.091	Q J	5.0	0.046	pg/g
2,3,4,6,7,8-HxCDF	ND		5.0	0.049	pg/g
1,2,3,7,8,9-HxCDF	ND		5.0	0.071	pg/g
Total HxCDF	1.6	B J Q	5.0	0.051	pg/g
1,2,3,4,6,7,8-HpCDF	0.69	Q J	5.0	0.073	pg/g
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.11	pg/g
Total HpCDF	1.6	J Q	5.0	0.088	pg/g
OCDF	1.4	B J	10	0.10	pg/g

MWH Americas, Inc.
 Sample ID: HZBS0124S001SP
 Trace Level Organic Compounds

Lot - Sample #....:	D9F020257 - 001	Work Order #....:	LD63G1AE	Matrix....:	SO
Date Sampled....:	06/01/09	Date Received....:	06/02/09	Dilution Factor:	1
Prep Date....:	06/04/09	Analysis Date....:	06/27/09	Percent Moisture:	1.1
Prep Batch #:	9155120	Instrument ID....:	M2A	Method:	EPA-5 1613B
Initial Wgt/Vol :	10.1 g				
Analyst ID....:	Patricia(Trish) M. Parsly				

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C-2,3,7,8-TCDD	82	25 - 164
13C-1,2,3,7,8-PeCDD	77	25 - 181
13C-1,2,3,4,7,8-HxCDD	97	32 - 141
13C-1,2,3,6,7,8-HxCDD	86	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	78	23 - 140
13C-OCDD	66	17 - 157
13C-2,3,7,8-TCDF	80	24 - 169
13C-1,2,3,7,8-PeCDF	79	24 - 185
13C-2,3,4,7,8-PeCDF	75	21 - 178
13C-1,2,3,4,7,8-HxCDF	83	26 - 152
13C-1,2,3,6,7,8-HxCDF	84	26 - 123
13C-2,3,4,6,7,8-HxCDF	84	28 - 136
13C-1,2,3,7,8,9-HxCDF	70	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	84	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	72	26 - 138

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
37Cl4-2,3,7,8-TCDD	83	35 - 197

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- J Estimated Result.
- Q Estimated maximum possible concentration (EMPC).

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Boeing SSFL – ISRA

Lot D9I110277

Sarah VonRaesfeld
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TestAmerica Laboratories, Inc.



Lisa B. Uriell
Project Manager

September 24, 2009

Case Narrative

Enclosed is the report for two samples received at TestAmerica Laboratories, Inc. – Denver laboratory on September 11, 2009. The results included in this report relate only to the samples in this report and has been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data has been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than Denver's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

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Quality Control Summary for Lot D9I110277

Sample Receiving

The cooler temperature for the samples received on September 11, 2009, at the Denver laboratory was 3.7°C. All sample containers were received in acceptable condition.

Total Metals – SW846 Method 6020

Matrix spike analyses for Method 6020 QC batch 9257403 were performed on a sample from another lot, and were in control.

Post digestion spike analysis for Method 6020, QC batch 9257403 was performed on a sample from another lot. All spike parameters were within QC control limits.

The Serial Dilution analysis for Method 6020 QC batch 9257403 was performed on a sample from another lot, and was in control.

No anomalies were observed.

General Chemistry – Method ASTM D 2216-90

The duplicate analysis for Percent Moisture (batch 9257166) was performed on a sample from another lot and was in control.

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9I110277

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
HZET0200S001SP 09/10/09 09:40 001				
Lead	5.4	0.41	mg/kg	SW846 6020
Percent Moisture	1.5	0.10	%	ASTM D 2216-90
HZET0209S001SP 09/10/09 13:30 002				
Lead	7.7	0.41	mg/kg	SW846 6020
Percent Moisture	1.6	0.10	%	ASTM D 2216-90

METHODS SUMMARY

D9I110277

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
ICP-MS (6020)	SW846 6020	SW846 3050B
Method for Determination of Water Content of Soil	ASTM D 2216-90	ASTM D2216-90

References:

ASTM Annual Book Of ASTM Standards.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9I110277

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
ASTM D 2216-90	Braden H. Peterson	6733
SW846 6020	Thomas Lill	6929

References:

ASTM Annual Book Of ASTM Standards.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9I110277

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LKNGC	001	HZET0200S001SP	09/10/09	09:40
LKNGP	002	HZET0209S001SP	09/10/09	13:30

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

D9I110277

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SO	SW846 6020		9257403	9257219
	SO	ASTM D 2216-90		9257166	9257086
002	SO	SW846 6020		9257403	9257219
	SO	ASTM D 2216-90		9257166	9257086

TestAmerica

Total Metals

CLP-Like Forms

Lot ID: D9I110277

Client: MWH Americas, Inc. – Boeing

Method: SW846 6020

Associated Samples: 001 and 002

Total Metals Analysis
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: MWH Americas, Inc.
Lab Code: _____ Case No.: _____
SOW No.: _____

SDG No.: D9I110277
SAS No.: _____

<u>Sample ID.</u>	<u>Lab Sample No.</u>
<u>HZET0200S001SP</u>	<u>D9I110277-001</u>
<u>HZET0209S001SP</u>	<u>D9I110277-002</u>

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: *Janice Collins*

Name: Janice Collins

Date: 9/22/09

Title: Metals Analyst

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER **Client Sample ID:** HZET0200S001SP
Lot/SDG Number: D9I110277 **Lab Sample ID:** D9I110277-001
Matrix: SOLID **Lab WorkOrder:** LKNGC
% Moisture: 1.5 **Date/Time Collected:** 09/10/09 09:40
Basis: Dry **Date/Time Received:** 09/11/09 09:00

CAS No.	Analyte	Conc.	MDL	RL	Units	Q	Method
7439-92-1	Lead	5.4	0.018	0.4i	mg/kg		6020

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9I110277
Matrix: SOLID
% Moisture: 1.6
Basis: Dry

Client Sample ID: HZET0209S001SP
Lab Sample ID: D9I110277-002
Lab WorkOrder: LKNGP
Date/Time Collected: 09/10/09 13:30
Date/Time Received: 09/11/09 09:00

CAS No.	Analyte	Conc.	MDL	RL	Units	Q	Method
7439-92-1	Lead	7.7	0.018	0.41	mg/kg		6020

TestAmerica

General Chemistry

Standard LIMS Report

Lot ID: D9I110277

Client: MWH Americas, Inc. – Boeing

Methods: ASTM D 2216-90

Associated Samples: 001 and 002

MWH Americas, Inc.

Client Sample ID: HZET0200S001SP

General Chemistry

Lot-Sample #....: D9I110277-001 Work Order #....: LKNGC Matrix.....: SO
Date Sampled....: 09/10/09 09:40 Date Received...: 09/11/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	1.5	0.10	%	ASTM D 2216-90	09/14/09	9257166
		Dilution Factor: 1		Analysis Time...: 12:45	MDL.....: 0.0	

MWH Americas, Inc.

Client Sample ID: HZET0209S001SP

General Chemistry

Lot-Sample #...: D9I110277-002 Work Order #...: LKNGP Matrix.....: SO
Date Sampled...: 09/10/09 13:30 Date Received...: 09/11/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	1.6	0.10	%	ASTM D 2216-90	09/14/09	9257166
		Dilution Factor: 1		Analysis Time...: 12:45	MDL.....: 0.0	

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: D9I110277 Work Order #....: LKFP2-SMP Matrix.....: SOLID

LKFP2-DUP

Date Sampled....: 09/08/09 09:00 Date Received...: 09/08/09

% Moisture.....: 13

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>		<u>RPD</u>	<u>LIMIT</u>		<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Moisture	13	13	%	1.5	(0-20)	ASTM D 2216-90	09/14/09	9257166
				Dilution Factor: 1		Analysis Time...: 12:45		
						SD Lot-Sample #: D9I080121-001		

3.1
46
21
9/11/9

BOEING 9/11/9

CHAIN OF CUSTODY RECORD

D9I110277

COC #:

MWHAG20090910_01
Page: 1 of 1

Customer Information		Project Information		Project Information		Requested Analyses		Instructions/TAT	
Site:	SSFL	Client Name:	Boeing	Collector:	A. Goldenberg	Boeing PM:			
Company:	MWH	Sampling Event:	ISRA Sampling, August 2009	Contact #:					
Report to:	Sarah Von Raesfeld	Project Number:	1891614.05462	Requested Analyses					
Address:	2121 N. California Blvd Suite 600 Walnut Creek CA 94596	Project Manager:	Alex Fischl (925) 627-4627						
		Field Contact:	Benjamin Stewart (818) 266-1378						
		Lab Name:	TestAmerica-Denver						
		Lab Contact:	Lisa Urieli						
Email:	sarah.vonraesfeld@mwhglobal.c sean.levitt@mwhglobal.com	Lab Address:	4955 Yarrow Arvada, CO 80002	D2216 Moisture Soil		Metals 6020 Soil Lead			
		Lab Phone:	(303) 736-0103						
Sample Name	Matrix	Date	Time	No. of Containers					Comments
HZET0200S001SP	Soil	9/10/2009	9:40	1	10	10			
HZET0209S001SP	Soil	9/10/2009	13:30	1	10	10			

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:
<i>MWH</i>	9-10-09	<i>Samy D...</i>	9/16/09				
Company:	Time:	Company:	Time:	Company:	Time:	Company:	Time:
MWH		MWH	0900				

Geotracker EDF
Data Validation Package Level IV

TestAmerica Denver
Sample Receiving Checklist

Lot #: D9I110277 Date/Time Received: 9/11/09 0900

Company Name & Sampling Site: Boeing - MWH ISRA

PM to Complete This Section: *Yes* *No*
 Residual chlorine check required: Quarantined:

Quote #: 80017-D

Special Instructions:

Time Zone:
 • EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 3.7° _____
 N/A Yes No

Initials
AB

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading \leq to background levels? Yes: No: _____
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative HCl 4 \pm 2°C Sodium Thiosulfate Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver
Sample Receiving Checklist

Lot # D9I110277

Login Checks:

Initials

N/A Yes No

JB

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? 1
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

45 cold / 5 months

Labeling and Storage Checks:

Initials

CUK

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

Report Cover Page	1
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% Moisture	182
Total Number of Pages in this Package	185



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

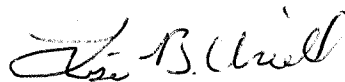
ANALYTICAL REPORT

Boeing SSFL – ISRA

Lot D9I150142

Sarah VonRaesfeld
MWH Americas, Inc.
2121 N. California Blvd.
Suite 600
Walnut Creek, CA 94596

TestAmerica Laboratories, Inc.



Lisa B. Uriell
Project Manager

September 21, 2009

Case Narrative

Enclosed is the report for one sample received at TestAmerica Laboratories, Inc. – Denver laboratory on September 15, 2009. The results included in this report relate only to the sample in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data has been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than Denver's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The sample presented in this report was analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

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Quality Control Summary for Lot D9I150142

Sample Receiving

The cooler temperature for the sample received on September 15, 2009, at the Denver laboratory was 2.1°C. All sample containers were received in acceptable condition.

Total Metals – SW846 Method 6020

Matrix spike analyses for Method 6020 QC batch 9258264 were performed on sample HZET0219S001SP (D9I150142-001), and were in control.

Post digestion spike analysis for Method 6020, QC batch 9258264 was performed on sample HZET0219S001SP (D9I150142-001). All spike parameters were within QC control limits.

The Serial Dilution analysis for Method 6020 QC batch 9258264 was performed on sample HZET0219S001SP (D9I150142-001), and was in control.

No anomalies were observed.

General Chemistry – Method ASTM D 2216-90

The duplicate analysis for Percent Moisture (batch 9260113) was performed on sample HZET0219S001SP (D9I150142-001) and was in control.

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9I150142

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
HZET0219S001SP 09/14/09 13:40 001				
Lead	4.1	0.40	mg/kg	SW846 6020
Percent Moisture	1.2	0.10	%	ASTM D 2216-90

METHODS SUMMARY

D9I150142

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
ICP-MS (6020)	SW846 6020	SW846 3050B
Method for Determination of Water Content of Soil	ASTM D 2216-90	ASTM D2216-90

References:

ASTM Annual Book Of ASTM Standards.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9I150142

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
ASTM D 2216-90	Braden H. Peterson	6733
SW846 6020	Thomas Lill	6929

References:

ASTM Annual Book Of ASTM Standards.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9I150142

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LKR3A	001	HZET0219S001SP	09/14/09	13:40

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

D9I150142

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SO	SW846 6020		9258264	9258169
	SO	ASTM D 2216-90		9260113	9260064

TestAmerica

Total Metals

CLP-Like Forms

Lot ID: D9I150142

Client: MWH Americas, Inc. – Boeing

Method: SW846 6020

Associated Sample: 001

Total Metals Analysis
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: MWH Americas, Inc.

SDG No.: D9I150142

Lab Code: _____ Case No.: _____

SAS No.: _____

SOW No.: _____

Sample ID.

Lab Sample No.

HZET0219S001SP

D9I150142-001

HZET0219S001SPMS MS

D9I150142-001S

HZET0219S001SPMSD MSD

D9I150142-001SD

Were ICP interelement corrections applied?

Yes/No YES

Were ICP background corrections applied?

Yes/No YES

If yes-were raw data generated before
application of background corrections?

Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins

Name: Janice Collins

Date: 9/21/09

Title: Metals Analyst

TestAmerica

General Chemistry

Standard LIMS Report

Lot ID: D9I150142

Client: MWH Americas, Inc. – Boeing

Methods: ASTM D 2216-90

Associated Sample: 001

MWH Americas, Inc.

Client Sample ID: HZET0219S001SP

General Chemistry

Lot-Sample #....: D9I150142-001 Work Order #....: LKR3A Matrix.....: SO
Date Sampled...: 09/14/09 13:40 Date Received...: 09/15/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	1.2	0.10	%	ASTM D 2216-90	09/17/09	9260113
		Dilution Factor: 1		Analysis Time..: 10:45	MDL.....: 0.0	

211
286
201
9/15/17



CHAIN OF CUSTODY RECORD

09I150142

COC #:

MWHAQ20090914_01

Page: 1 of 1

Customer Information		Project Information			Project Information		Project Information		Requested Analyses		Instructions/TAT	
Site:	SSFL	Client Name:	Boeing		Collector:	A. Goldaubers		Boeing PM:			Legend: Numerical values for analyses equate to turn around time in days H - Hold EH - Extract/Extrude & Hold Note: Values in the cells below are Turn Around Times.	
Company:	MWH	Sampling Event:	ISRA Sampling, August 2009		Contact #:							
Report to:	Sarah Von Raesfeld	Project Number:	1891614.05462									
Address:	2121 N. California Blvd	Project Manager:	Benjamin Stewart									
	Suite 600	PM Phone #:	(818) 266-1378									
	Walnut Creek	Field Contact:	Benjamin Stewart									
	CA	Field Contact #:	(818) 266-1378									
Email:	94596	Lab Name:	TestAmerica-Denver									
	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Lisa Uriell									
	sean.leffler@mwhglobal.com	Lab Address:	4955 Yarrow Arvada, CO 80002									
Sample Name		Lab Phone:	(303) 736-0103									
HZET0219S001SP	Soil	Matrix	Date	Time	No. of Containers							
			9/14/2009	13:40	1	D2216 Moisture Soil	5	Metals 6020 Soil Lead	5			

1. Relinquished by:		Date:	2. Received by:		Date:	3. Relinquished by:		Date:	4. Received by:		Date:
Company:	MWH	Time:	Company:	Time:	Company:	Time:	Company:	Time:	Company:	Time:	
<i>[Signature]</i>		9-14-09				<i>[Signature]</i>		9/15/09	<i>[Signature]</i>		9/15/09
Comments: 5 Day TAT									Geotracker EDF <input type="checkbox"/>		
									Data Validation Package <input checked="" type="checkbox"/> Level IV		

TestAmerica Denver
Sample Receiving Checklist

Lot #: D9I150142 Date/Time Received: 9/15/09 0845

Company Name & Sampling Site: Boeing - MWH - ISRA

PM to Complete This Section: Yes No
 Residual chlorine check required: Quarantined:

Quote #: 80017-D

Special Instructions:
 * Analytical = 9/21
 * Report = 9/22

Time Zone:
 • EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 2.1 _____

- | N/A | Yes | No | | Initials |
|-------------------------------------|-------------------------------------|--------------------------|---|-----------|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR. | <i>JM</i> |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: <input checked="" type="checkbox"/> No: _____ | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. Chain of custody present? If no, document on CUR. | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Bottles broken and/or are leaking? If yes, document on CUR. | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 5. Multiphasic samples obvious? If yes, document on CUR. | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR. | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 7. pH of all samples checked and meet requirements? If no, document on CUR. | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding. | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR. | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 10. Were VOA samples without headspace? If no, document on CUR. | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 11. Were VOA vials preserved? Preservative <input type="checkbox"/> HCl <input type="checkbox"/> 4±2°C <input type="checkbox"/> Sodium Thiosulfate <input type="checkbox"/> Ascorbic Acid | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 12. Did samples require preservation with sodium thiosulfate? | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR. | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR. | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding. | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM. | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 17. Are analyses with short holding times requested? | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 18. Was a quick Turn Around (TAT) requested? | |

TestAmerica Denver
Sample Receiving Checklist

Lot # D9I150142

Login Checks:

N/A Yes No

Initials
fm

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? 1
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

45 days / 5 months

Labeling and Storage Checks:

Initials
SB

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

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Total Number of Pages in this Package	231



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Boeing SSFL – ISRA

Lot D9I260153

Sarah VonRaesfeld
MWH Americas, Inc.
2121 N. California Blvd.
Suite 600
Walnut Creek, CA 94596

TestAmerica Laboratories, Inc.



Lisa B. Uriell
Project Manager

October 2, 2009

Case Narrative

Enclosed is the report for one sample received at TestAmerica Laboratories, Inc. – Denver laboratory on September 26, 2009. The results included in this report relate only to the sample in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data has been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than Denver's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The sample presented in this report was analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D9I260153

Sample Receiving

The cooler temperature for the sample received on September 26, 2009, at the Denver laboratory was 2.3°C. All sample containers were received in acceptable condition.

The requested Dioxin/Furan analysis is being reported under another cover, D9I260156.

Total Metals – SW846 Method 6020

Matrix spike analyses for Method 6020 QC batch 9271123 were performed on sample HZET0710S001SP (D9I260153-001). The MS/MSD exhibited percent recoveries below the QC control limits for Copper. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Post digestion spike analysis for Method 6020, QC batch 9271123 was performed on sample HZET0710S001SP (D9I260153-001). All spike parameters were within QC control limits.

The Serial Dilution analysis for Method 6020 QC batch 9271123 was performed on sample HZET0710S001SP (D9I260153-001), and was in control.

No other anomalies were observed.

General Chemistry – Method ASTM D 2216-90

The duplicate analysis for Percent Moisture (batch 9272153) was performed on a sample from another client and/or lot and was in control.

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9I260153

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
HZET0710S001SP 09/25/09 07:15 001				
Copper	16	0.22	mg/kg	SW846 6020
Percent Moisture	8.5	0.10	%	ASTM D 2216-90

METHODS SUMMARY

D9I260153

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
ICP-MS (6020)	SW846 6020	SW846 3050B
Method for Determination of Water Content of Soil	ASTM D 2216-90	ASTM D2216-90

References:

ASTM Annual Book Of ASTM Standards.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9I260153

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
ASTM D 2216-90	Braden H. Peterson	6733
SW846 6020	Thomas Lill	6929

References:

ASTM Annual Book Of ASTM Standards.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9I260153

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LLJ81	001	HZET0710S001SP	09/25/09	07:15

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

D9I260153

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SO	SW846 6020		9271123	9271094
	SO	ASTM D 2216-90		9272153	9272183

TestAmerica

Total Metals

CLP-Like Forms

Lot ID: D9I260153

Client: MWH Americas, Inc. – Boeing

Method: SW846 6020

Associated Sample: 001

Total Metals Analysis
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: MWH Americas, Inc. SDG No.: D9I260153
Lab Code: _____ Case No.: _____ SAS No.: _____
SOW No.: _____

<u>Sample ID.</u>	<u>Lab Sample No.</u>
<u>HZET0710S001SP</u>	<u>D9I260153-001</u>
<u>HZET0710S001SP MS</u>	<u>D9I260153-001S</u>
<u>HZET0710S001SP MSD</u>	<u>D9I260153-001SD</u>

Were ICP interelement corrections applied? Yes/No YES
Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins Name: Janice Collins
Date: 10/11/09 Title: Metals Analyst

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

MWH Americas, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9I260153
Matrix: SOLID
% Moisture: 8.5
Basis: Dry

Client Sample ID: HZET0710S001SP
Lab Sample ID: D9I260153-001
Lab WorkOrder: LLJ81
Date/Time Collected: 09/25/09 07:15
Date/Time Received: 09/26/09 08:30

CAS No.	Analyte	Conc.	MDL	RL	Units	Q	Method
7440-50-8	Copper	16	0.078	0.22	mg/kg		6020

TestAmerica

General Chemistry

Standard LIMS Report

Lot ID: D9I260153

Client: CH2M Hill, Inc. – Boeing

Methods: ASTM D 2216-90

Associated Sample: 001

MWH Americas, Inc.

Client Sample ID: HZET0710S001SP

General Chemistry

Lot-Sample #...: D9I260153-001 Work Order #...: LLJ81 Matrix.....: SO
Date Sampled...: 09/25/09 07:15 Date Received...: 09/26/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	8.5	0.10	%	ASTM D 2216-90	09/29/09	9272153
		Dilution Factor: 1		Analysis Time...: 12:45	MDL.....: 0.0	

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: D9I260153

Work Order #...: LLG67-SMP
LLG67-DUP

Matrix.....: SOLID

Date Sampled...: 09/24/09 14:00 Date Received...: 09/25/09

% Moisture.....: 2.4

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u> <u>RESULT</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u> <u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Percent Moisture	2.4	2.6	%	6.9	(0-20)	ASTM D 2216-90	SD Lot-Sample #: D9I250189-001 09/29/09	9272153
			Dilution Factor: 1			Analysis Time...: 12:45		



CHAIN OF CUSTODY RECORD

COC #:

2.3. 121
from 9/24/09

09I 26015 3

MWH-MB20090925_01

Page: 1 of 1

Customer Information		Project Information			Project Information		Requested Analyses		Instructions/TAT	
Site:	SSFL	Client Name:	Boeing		Collector:	M. Baumgardner		Boeing PM:	Legend: Numerical values for analyses equate to turn around time in days H - Hold EH - Extract/Extrude & Hold Note: Values in the cells below are Turn Around Times.	
Company:	MWH	Sampling Event:	ISRA Sampling, August 2009		Contact #:					
Report to:	Sarah Von Raesfeld	Project Number:	1891614.05462		Requested Analyses					
Address:	2121 N. California Blvd	Project Manager:	Alex Fischl							
	Suite 600	PM Phone #:	(925) 627-4627							
	Walnut Creek	Field Contact:	Benjamin Stewart							
	CA	Field Contact #:	(818) 266-1378							
	94596	Lab Name:	TestAmerica-Denver							
Email:	sarah.vonraesfeld@mwhglobal.c	Lab Contact:	Lisa Uriell							
	sean.leffler@mwhglobal.com	Lab Address:	4955 Yarrow							
			Arvada, CO 80002							
		Lab Phone:	(303) 736-0103							
Sample Name		Matrix	Date	Time	No. of Containers					
HZET0710S001SP		Soil	9/25/2009	7:15	1					
						D2216 Moisture Soil	5			
						Dioxin by 1613B - Soil	5			
						Metals 6020 Soil Copper	5			

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
<i>Sarah Von Raesfeld</i>	9-25-09					<i>Sara Mueller</i>	9/26/09
Company:	Time:	Company:	Time:	Company:	Time:	Company:	Time:
MWH	14:54					THA Denver	0830
Comments: <input type="checkbox"/> Geotracker EDF <input checked="" type="checkbox"/> Data Validation Package							

TestAmerica Denver
Sample Receiving Checklist

Lot #: D9I240153 Date/Time Received: 9/24/09 0830

Company Name & Sampling Site: Boeing - MWH - ISRA

PM to Complete This Section: Yes No Yes No
 Residual chlorine check required: Quarantined:

Quote #: 80017-D

Special Instructions:

* Log Dioxins in OTHER lot

* Analytical = 10/2

* Report = 10/5

Time Zone:

• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 2.3 _____

N/A Yes No

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: No: _____
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative HCl 4±2°C Sodium Thiosulfate Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

Initials
fm

TestAmerica Denver
Sample Receiving Checklist

Lot # D9I240153

Login Checks:

Initials

N/A Yes No

LM

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? 1
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

45 days / 5 months

Labeling and Storage Checks:

Initials

SL

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

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Total Number of Pages in this Package	528



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

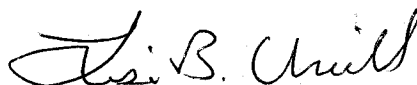
ANALYTICAL REPORT

Boeing SSFL – ISRA

Lot D9I260156

Sarah VonRaesfeld
MWH Americas, Inc.
2121 N. California Blvd.
Suite 600
Walnut Creek, CA 94596

TestAmerica Laboratories, Inc.



Lisa B. Uriell
Project Manager

October 7, 2009

Case Narrative

Enclosed is the report for one sample received at TestAmerica Laboratories, Inc. – Denver laboratory on September 26, 2009. The results included in this report relate only to the sample in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data has been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than Denver's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The sample presented in this report was analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D9I260156

Sample Receiving

The cooler temperature for the sample received on September 26, 2009, at the Denver laboratory was 2.3°C. All sample containers were received in acceptable condition.

The requested Dioxin/Furan analyses were performed at TestAmerica's Knoxville laboratory located at 8515 Middlebrook Pike, Knoxville, TN 37921.

Please note that additional analyses requested on the Chain of Custody for sample HZET0710S001SP are reported under a separate cover.

Dioxins & Furans – SW846 Method 1613B

Several results are reported at the maximum possible concentration in several samples. These results have been flagged with "Q", and should be considered estimated.

Matrix Spike analysis for QC batch 9272082 was performed on sample HZET0710S001SP (D9I260156-001). All spike parameters were within QC control limits.

All QC criteria were met.

The following flags are used to qualify results for chlorinated dioxin and furan results:

Dioxin – SW846 Method 1613B (cont.)

J – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is “the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point”. The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report the ML is qualitatively defined as described above, and quantitatively defined as follows: Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

E – The reported result is an estimate. The amount reported is above the UCL described below. The E qualifier is applied on the basis of the Upper Calibration Level (UCL). The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

B – The analyte is present in the associated method blank at a reportable level. For this analysis, there is no method specified reporting level, other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of 2.5-to-1. Therefore, the presence of any amount of the analyte present in the blank will result a B qualifier on all associated samples.

If the blank has analytes present above the ML (described above) the need for corrective action beyond qualifying the associated data is evaluated. The determination is made whether the amount in the blank is less than 5% of the lowest amount in associated client samples or regulatory limit. If this is the case, sample processing may continue with the qualification of the data. If the amount in the blank is greater than 5% of the lowest amount in associated client samples or regulatory limit, corrective action must be taken.

The corrective actions may include extracting a second aliquot of sample if available, or notifying the client to assess the impact on the project objectives.

Note: Some laboratories do not report contamination in the blank unless it is above their lower calibration limit, or an established percentage of the level in the samples, or an established percentage of the regulatory limit. Likewise, some laboratories set a reporting limit at one half the lower calibration limit.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. The criteria include the following areas:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio.)
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity, due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer

X – Other. See explanation in narrative.

Dioxin – SW846 Method 1613B (cont.)

Laboratory studies supporting risk assessment and TMDL evaluations frequently use qualified data reported as low as the MDL, or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL^{1,2,3}. The EDL is based on a direct measurement of the signal-to-noise ratio acquired during sample analysis. This s/n measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the s/n obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample, than is an MDL run periodically on a reference matrix.

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often more accurate than the assumption is that contamination is present at the DL or ML. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

In sample data, peaks must have an intensity of 2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above, and a bit of high school algebra reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 X the noise on the calibration. This is the result of normal variability. Because the source method for the EDL (SW-846 8290 and 8280A) does not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

No other anomalies were observed.

General Chemistry – Method ASTM D 2216-90

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9I260156

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
HZET0710S001SP 09/25/09 07:15 001				
1,2,3,6,7,8-HxCDD	0.96 Q,J	5.5	pg/g	EPA-5 1613B
1,2,3,7,8,9-HxCDD	1.1 J	5.5	pg/g	EPA-5 1613B
Total HxCDD	2.0 J,Q	5.5	pg/g	EPA-5 1613B
1,2,3,4,6,7,8-HpCDD	2.3 J	5.5	pg/g	EPA-5 1613B
Total HpCDD	6.5 J	5.5	pg/g	EPA-5 1613B
OCDD	27	11	pg/g	EPA-5 1613B
1,2,3,6,7,8-HxCDF	0.71 J	5.5	pg/g	EPA-5 1613B
Total HxCDF	0.71 J	5.5	pg/g	EPA-5 1613B
1,2,3,4,6,7,8-HpCDF	0.25 Q,J	5.5	pg/g	EPA-5 1613B
Total HpCDF	0.75 Q,J	5.5	pg/g	EPA-5 1613B
OCDF	1.0 Q,J	11	pg/g	EPA-5 1613B
Percent Moisture	9.7	0.10	%	MCAWW 160.3 MOD

METHODS SUMMARY

D9I260156

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B	EPA-5 1613
Percent Moisture	MCAWW 160.3 MOD	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

METHOD / ANALYST SUMMARY

D9I260156

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
EPA-5 1613B	Melissa A. Davidson	010265
MCAWW 160.3 MOD	Lauren L. Walker	400461

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

D9I260156

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LLJ9F	001	HZET0710S001SP	09/25/09	07:15

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

D9I260156

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SO	EPA-5 1613B		9272082	9272046
	SO	MCAWW 160.3 MOD		9273163	

TestAmerica

Dioxins & Furans

CLP-Like Forms

Lot ID: D9I260156

Client: MWH Americas, Inc. – Boeing

Method: SW846 1613B

Associated Sample: 001

Batch: 9272082

MWH Americas, Inc.
 Sample ID: HZET0710S001SP
 Trace Level Organic Compounds

Lot - Sample #....:	D91260156 - 001	Work Order #....:	LLJ9F1AA	Matrix....:	SO
Date Sampled....:	09/25/09	Date Received....:	09/26/09	Dilution Factor:	1
Prep Date....:	09/29/09	Analysis Date....:	10/05/09	Percent Moisture:	9.7
Prep Batch #:	9272082				
Initial Wgt/Vol :	10 g	Instrument ID....:	M1A	Method:	EPA-5 1613B
Analyst ID....:	Melissa A. Davidson				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.1	0.42	pg/g
Total TCDD	ND		1.1	0.42	pg/g
1,2,3,7,8-PeCDD	ND		5.5	0.17	pg/g
Total PeCDD	ND		5.5	0.17	pg/g
1,2,3,4,7,8-HxCDD	ND		5.5	0.15	pg/g
1,2,3,6,7,8-HxCDD	0.96	Q J	5.5	0.21	pg/g
1,2,3,7,8,9-HxCDD	1.1	J	5.5	0.16	pg/g
Total HxCDD	2.0	J Q	5.5	0.17	pg/g
1,2,3,4,6,7,8-HpCDD	2.3	J	5.5	0.34	pg/g
Total HpCDD	6.5	J	5.5	0.34	pg/g
OCDD	27		11	0.34	pg/g
2,3,7,8-TCDF	ND		1.1	0.28	pg/g
Total TCDF	ND		1.1	0.28	pg/g
1,2,3,7,8-PeCDF	ND		5.5	0.13	pg/g
2,3,4,7,8-PeCDF	ND		5.5	0.10	pg/g
Total PeCDF	ND		5.5	0.11	pg/g
1,2,3,4,7,8-HxCDF	ND		5.5	0.096	pg/g
1,2,3,6,7,8-HxCDF	0.71	J	5.5	0.098	pg/g
2,3,4,6,7,8-HxCDF	ND		5.5	0.10	pg/g
1,2,3,7,8,9-HxCDF	ND		5.5	0.17	pg/g
Total HxCDF	0.71	J	5.5	0.11	pg/g
1,2,3,4,6,7,8-HpCDF	0.25	Q J	5.5	0.11	pg/g
1,2,3,4,7,8,9-HpCDF	ND		5.5	0.18	pg/g
Total HpCDF	0.75	Q J	5.5	0.14	pg/g
OCDF	1.0	Q J	11	0.26	pg/g

MWH Americas, Inc.
 Sample ID: HZET0710S001SP
 Trace Level Organic Compounds

Lot - Sample #....:	D91260156 - 001	Work Order #....:	LLJ9F1AA	Matrix....:	SO
Date Sampled....:	09/25/09	Date Received....:	09/26/09	Dilution Factor:	1
Prep Date....:	09/29/09	Analysis Date....:	10/05/09	Percent Moisture:	9.7
Prep Batch #:	9272082				
Initial Wgt/Vol :	10 g	Instrument ID....:	M1A	Method:	EPA-5 1613B
Analyst ID....:	Melissa A. Davidson				

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C-2,3,7,8-TCDD	70	25 - 164
13C-1,2,3,7,8-PeCDD	69	25 - 181
13C-1,2,3,4,7,8-HxCDD	86	32 - 141
13C-1,2,3,6,7,8-HxCDD	70	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	69	23 - 140
13C-OCDD	60	17 - 157
13C-2,3,7,8-TCDF	66	24 - 169
13C-1,2,3,7,8-PeCDF	67	24 - 185
13C-2,3,4,7,8-PeCDF	71	21 - 178
13C-1,2,3,4,7,8-HxCDF	77	26 - 152
13C-1,2,3,6,7,8-HxCDF	82	26 - 123
13C-2,3,4,6,7,8-HxCDF	84	28 - 136
13C-1,2,3,7,8,9-HxCDF	68	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	78	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	66	26 - 138

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
37Cl4-2,3,7,8-TCDD	81	35 - 197

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

- J Estimated Result.
- Q Estimated maximum possible concentration (EMPC).

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

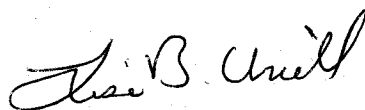
ANALYTICAL REPORT

Boeing SSFL – ISRA

Lot D9K110632

Sarah VonRaesfeld
MWH Americas, Inc.
2121 N. California Blvd.
Suite 600
Walnut Creek, CA 94596

TestAmerica Laboratories, Inc.



Lisa B. Uriell
Project Manager

November 25, 2009

Case Narrative

Enclosed is the report for one sample received at TestAmerica Laboratories, Inc. – Denver laboratory on November 11, 2009. The results included in this report relate only to the sample in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data has been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than Denver's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The sample presented in this report was analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

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Quality Control Summary for Lot D9K110632

Sample Receiving

The cooler temperature for the sample received on November 11, 2009, at the Denver laboratory was 1.5°C. All sample containers were received in acceptable condition.

The sample ID for sample AZET0101S001SP was changed to A2ET0101S001SP as instructed by the client on November 12, 2009. A change order request form and revised Chain of Custody were received via email on November 12, 2009. The original and revised COCs and the change order request form have been included.

The requested Dioxin/Furan analyses were performed at TestAmerica's Knoxville laboratory located at 8515 Middlebrook Pike, Knoxville, TN 37921.

Dioxins & Furans – SW846 Method 1613B

Total HxCDD is reported at the maximum possible concentration in sample AZET0101S001SP (D9K110632-001). This result has been flagged with "Q", and should be considered estimated.

OCDD is reported at the maximum possible concentration in the method blank associated with QC batch 9320248. This result has been flagged with "Q", and should be considered estimated.

Low levels of OCDD, 1,2,3,4,6,7,8-HpCDF and Total HpCDF were detected in the method blank associated with QC batch 9320248. However, because the concentrations in the method blank were not present at levels greater than one half the reporting limits, corrective action was deemed unnecessary.

Dioxin – SW846 Method 1613B (cont.)

Matrix Spike analysis for QC batch 9320248 was performed on sample AZET0101S001SP (D9K110632-001). All spike parameters were within QC control limits.

All QC criteria were met.

The following flags are used to qualify results for chlorinated dioxin and furan results:

J – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is “the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point”. The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report the ML is qualitatively defined as described above, and quantitatively defined as follows: Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

E – The reported result is an estimate. The amount reported is above the UCL described below. The E qualifier is applied on the basis of the Upper Calibration Level (UCL). The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

B – The analyte is present in the associated method blank at a reportable level. For this analysis, there is no method specified reporting level, other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of 2.5-to-1. Therefore, the presence of any amount of the analyte present in the blank will result a B qualifier on all associated samples.

If the blank has analytes present above the ML (described above) the need for corrective action beyond qualifying the associated data is evaluated. The determination is made whether the amount in the blank is less than 5% of the lowest amount in associated client samples or regulatory limit. If this is the case, sample processing may continue with the qualification of the data. If the amount in the blank is greater than 5% of the lowest amount in associated client samples or regulatory limit, corrective action must be taken.

The corrective actions may include extracting a second aliquot of sample if available, or notifying the client to assess the impact on the project objectives.

Note: Some laboratories do not report contamination in the blank unless it is above their lower calibration limit, or an established percentage of the level in the samples, or an established percentage of the regulatory limit. Likewise, some laboratories set a reporting limit at one half the lower calibration limit.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. The criteria include the following areas:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio.)
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

Dioxin – SW846 Method 1613B (cont.)

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity, due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and TMDL evaluations frequently use qualified data reported as low as the MDL, or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL^{1,2,3}. The EDL is based on a direct measurement of the signal-to-noise ratio acquired during sample analysis. This s/n measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the s/n obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample, than is an MDL run periodically on a reference matrix.

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often more accurate than the assumption is that contamination is present at the DL or ML. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

In sample data, peaks must have an intensity of 2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above, and a bit of high school algebra reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 X the noise on the calibration. This is the result of normal variability. Because the source method for the EDL (SW-846 8290 and 8280A) does not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

No other anomalies were observed.

General Chemistry – Method ASTM D 2216-90

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9K110632

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
AZET0101S001SP 11/10/09 14:29 001				
Total HxCDD	0.10 Q,J	5.0	pg/g	EPA-5 1613B
OCDD	0.75 B,J	10	pg/g	EPA-5 1613B
Percent Moisture	6.7	0.10	%	MCAWW 160.3 MOD

METHODS SUMMARY

D9K110632

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B	EPA-5 1613
Percent Moisture	MCAWW 160.3 MOD	MCAWW 160.3 MOD

References:

- EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994
- MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

METHOD / ANALYST SUMMARY

D9K110632

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
EPA-5 1613B	Patricia (Trish) M. Parsly	050655
MCAWW 160.3 MOD	Lauren L. Walker	400461

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

D9K110632

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LN93H	001	AZET0101S001SP	11/10/09	14:29

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

D9K110632

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SO	EPA-5 1613B		9320248	9320115
	SO	MCAWW 160.3 MOD		9317425	

TestAmerica

Dioxins & Furans

CLP-Like Forms

Lot ID: D9K110632

Client: MWH Americas, Inc. – Boeing

Method: SW846 1613B

Associated Sample: 001

Batch: 9320248

MWH Americas, Inc.
Sample ID: AZET0101S001SP
Trace Level Organic Compounds

Lot - Sample #....:	D9K110632 - 001	Work Order #....:	LN93H1AA	Matrix....:	SO
Date Sampled....:	11/10/09	Date Received....:	11/11/09	Dilution Factor:	1
Prep Date....:	11/16/09	Analysis Date....:	11/25/09	Percent Moisture:	6.7
Prep Batch #:	9320248				
Initial Wgt/Vol :	10.7 g	Instrument ID....:	MIA	Method:	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.27	pg/g
Total TCDD	ND		1.0	0.27	pg/g
1,2,3,7,8-PeCDD	ND		5.0	0.10	pg/g
Total PeCDD	ND		5.0	0.10	pg/g
1,2,3,4,7,8-HxCDD	ND		5.0	0.085	pg/g
1,2,3,6,7,8-HxCDD	ND		5.0	0.12	pg/g
1,2,3,7,8,9-HxCDD	ND		5.0	0.092	pg/g
Total HxCDD	0.10	Q J	5.0	0.097	pg/g
1,2,3,4,6,7,8-HpCDD	ND		5.0	0.16	pg/g
Total HpCDD	ND		5.0	0.16	pg/g
OCDD	0.75	B J	10	0.13	pg/g
2,3,7,8-TCDF	ND		1.0	0.17	pg/g
Total TCDF	ND		1.0	0.17	pg/g
1,2,3,7,8-PeCDF	ND		5.0	0.086	pg/g
2,3,4,7,8-PeCDF	ND		5.0	0.076	pg/g
Total PeCDF	ND		5.0	0.081	pg/g
1,2,3,4,7,8-HxCDF	ND		5.0	0.072	pg/g
1,2,3,6,7,8-HxCDF	ND		5.0	0.064	pg/g
2,3,4,6,7,8-HxCDF	ND		5.0	0.071	pg/g
1,2,3,7,8,9-HxCDF	ND		5.0	0.088	pg/g
Total HxCDF	ND		5.0	0.073	pg/g
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.099	pg/g
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.15	pg/g
Total HpCDF	ND		5.0	0.12	pg/g
OCDF	ND		10	0.13	pg/g

MWH Americas, Inc.
Sample ID: AZET0101S001SP
Trace Level Organic Compounds

Lot - Sample #....: D9K110632 - 001	Work Order #....: LN93H1AA	Matrix....: SO
Date Sampled....: 11/10/09	Date Received....: 11/11/09	Dilution Factor: 1
Prep Date....: 11/16/09	Analysis Date....: 11/25/09	Percent Moisture: 6.7
Prep Batch #: 9320248		
Initial Wgt/Vol : 10.7 g	Instrument ID....: M1A	Method: EPA-5 1613B
Analyst ID....: Patricia(Trish) M. Parsly		

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C-2,3,7,8-TCDD	79	25 - 164
13C-1,2,3,7,8-PeCDD	83	25 - 181
13C-1,2,3,4,7,8-HxCDD	77	32 - 141
13C-1,2,3,6,7,8-HxCDD	65	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	70	23 - 140
13C-OCDD	68	17 - 157
13C-2,3,7,8-TCDF	72	24 - 169
13C-1,2,3,7,8-PeCDF	74	24 - 185
13C-2,3,4,7,8-PeCDF	80	21 - 178
13C-1,2,3,4,7,8-HxCDF	61	26 - 152
13C-1,2,3,6,7,8-HxCDF	63	26 - 123
13C-2,3,4,6,7,8-HxCDF	67	28 - 136
13C-1,2,3,7,8,9-HxCDF	63	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	59	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	60	26 - 138

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
37Cl4-2,3,7,8-TCDD	91	35 - 197

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- J Estimated Result.
- Q Estimated maximum possible concentration (EMPC).



TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

ISRA Waste Characterization

Lot #: F9H310106

MWH Americas, Inc.

MWH Americas, Inc.
2121 N California Blvd
Suite 600
Walnut Creek, CA 94596

TESTAMERICA LABORATORIES, INC.


Kay Clay
Project Manager

September 8, 2009

Case Narrative
LOT NUMBER: F9H310106

This report contains the analytical results for the two samples received under chain of custody by TestAmerica St. Louis on August 29, 2009. These samples are associated with your ISRA Waste Characterization project.

The analytical results included in this report meet all applicable quality control procedure requirements.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. **TestAmerica St. Louis' Florida certification number is E87689.** The case narrative is an integral part of this report.

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All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

There are no observations or nonconformances associated with the analysis in this lot.

METHODS SUMMARY

F9H310106

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY
PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SAMPLE SUMMARY**F9H310106**

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LJ3FL	001	ISWC0062AS001SP	08/28/09	13:38
LJ3FM	002	ISWC0066AS001SP	08/28/09	14:02

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MWH Americas, Inc.

Client Sample ID: ISWC0062AS001SP

Radiochemistry

Lab Sample ID: F9H310106-001
 Work Order: LJ3FL
 Matrix: SOLID

Date Collected: 08/28/09 1338
 Date Received: 08/29/09 0930

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/g		Batch # 9245251	Yld %
Americium 241	-8E-02	U	1.5E-01		2.6E-01	09/02/09	09/03/09
Cesium 134	-1.5E-02	U	6.2E-02		1.1E-01	09/02/09	09/03/09
Cesium 137	3.44E-01		9.1E-02	2.00E-01	6.1E-02	09/02/09	09/03/09
Cobalt 60	0.0E+00	U	9.3E-02		1.7E-01	09/02/09	09/03/09
Europium 152	8E-03	U	1.4E-01		2.4E-01	09/02/09	09/03/09
Europium 154	6E-03	U	4.7E-01		8.9E-01	09/02/09	09/03/09
Lead 212	1.08E+00		1.8E-01		1.6E-01	09/02/09	09/03/09
Manganese 54	3.9E-02	U	5.9E-02		9.9E-02	09/02/09	09/03/09
Potassium 40	2.24E+01		2.9E+00		9E-01	09/02/09	09/03/09
Sodium 22	-2.0E-02	U	7.2E-02		1.3E-01	09/02/09	09/03/09
Thorium 232	1.43E+00		2.8E-01		3.0E-01	09/02/09	09/03/09
Uranium 235	1.3E-01	U	3.0E-01		5.0E-01	09/02/09	09/03/09
Uranium 238	8E-01	U	1.4E+00		2.4E+00	09/02/09	09/03/09
--- Other Detected Radionuclides ---							
Actinium 228	1.43E+00		2.8E-01		3.0E-01	09/02/09	09/03/09
Bismuth 214	1.06E+00		2.9E-01		2.3E-01	09/02/09	09/03/09
Lead 214	9.4E-01		1.7E-01		1.6E-01	09/02/09	09/03/09
Thallium 208	4.18E-01		9.96E-02		8.1E-02	09/02/09	09/03/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC.

U Result is less than the sample detection limit.

MWH Americas, Inc.

Client Sample ID: ISWC0066AS001SP

Radiochemistry

Lab Sample ID: F9H310106-002
 Work Order: LJ3FM
 Matrix: SOLID

Date Collected: 08/28/09 1402
 Date Received: 08/29/09 0930

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/g		Batch # 9245251	Yld %
Americium 241	2E-02	U	1.4E-01		2.4E-01	09/02/09	09/02/09
Cesium 134	7E-03	U	2.9E-02		5.3E-02	09/02/09	09/02/09
Cesium 137	5.2E-02	U	5.7E-02	2.00E-01	9.3E-02	09/02/09	09/02/09
Cobalt 60	-1.1E-02	U	6.0E-02		1.1E-01	09/02/09	09/02/09
Europium 152	-2E-02	U	1.4E-01		2.4E-01	09/02/09	09/02/09
Europium 154	1.5E-01	U	3.6E-01		6.3E-01	09/02/09	09/02/09
Lead 212	1.08E+00		1.8E-01		1.6E-01	09/02/09	09/02/09
Manganese 54	4E-03	U	5.3E-02		9.5E-02	09/02/09	09/02/09
Potassium 40	2.21E+01		2.5E+00		8E-01	09/02/09	09/02/09
Sodium 22	2.7E-02	U	5.9E-02		1.0E-01	09/02/09	09/02/09
Thorium 232	1.66E+00		3.0E-01		10E-02	09/02/09	09/02/09
Uranium 235	2.3E-01	U	3.0E-01		4.9E-01	09/02/09	09/02/09
Uranium 238	2.6E+00		1.8E+00		2.2E+00	09/02/09	09/02/09
--- Other Detected Radionuclides ---							
Actinium 228	1.66E+00		3.0E-01		10E-02	09/02/09	09/02/09
Lead 214	8.3E-01		1.8E-01		2.1E-01	09/02/09	09/02/09
Tantalum 182	3.4E-01		1.9E-01		2.6E-01	09/02/09	09/02/09
Thallium 208	4.36E-01		9.2E-02		7.4E-02	09/02/09	09/02/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC.

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F9H310106
 Matrix: SOLID

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/g	Batch #	9245251	Yld %	F9I020000-251B
Americium 241	2.7E-02	U	4.8E-02		8.2E-02	09/02/09	09/02/09
Cesium 134	-1.4E-02	U	4.5E-02		8.0E-02	09/02/09	09/02/09
Cesium 137	-9E-04	U	4.0E-02	2.00E-01	7.8E-02	09/02/09	09/02/09
Cobalt 60	0.0E+00	U	1.4E-02		5.0E-02	09/02/09	09/02/09
Europium 152	-2.1E-02	U	9.3E-02		1.7E-01	09/02/09	09/02/09
Europium 154	9E-02	U	2.5E-01		4.7E-01	09/02/09	09/02/09
Lead 212	-4E-03	U	5.9E-02		1.1E-01	09/02/09	09/02/09
Manganese 54	-10E-03	U	3.9E-02		7.3E-02	09/02/09	09/02/09
Potassium 40	-5E-01	U	1.8E+01		1E+00	09/02/09	09/02/09
Sodium 22	0.0E+00	U	1.3E-02		4.8E-02	09/02/09	09/02/09
Thorium 232	8E-02	U	1.7E-01		3.0E-01	09/02/09	09/02/09
Uranium 235	3E-02	U	1.0E-01		1.8E-01	09/02/09	09/02/09
Uranium 238	1.5E-01	U	5.2E-01		9.9E-01	09/02/09	09/02/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only

Bold results are greater than the MDC.

U Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F9H310106
 Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/g	901.1 MOD		F9I020000-251C	
Americium 241	9.88E+01	9.88E+01	8.0E+00	1.3E+00	100		(90 - 110)
Cesium 137	3.71E+01	3.78E+01	2.4E+00	5E-01	102		(90 - 110)
Cobalt 60	6.14E+01	6.04E+01	3.6E+00	3E-01	98		(90 - 110)
	Batch #:	9245251		Analysis Date:	09/04/09		

NOTE(S)

MDC is determined by instrument performance only

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F9H310106
 Matrix: SOLID

Date Sampled: 08/28/09
 Date Received: 08/29/09

Parameter	SAMPLE Result	Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ +/-)	% Yld	QC Sample ID
							Precision
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/g	901.1 MOD		F9H310106-001	
Americium 241	-8E-02 U	1.5E-01		-4E-02 U	1.6E-01	59	%RPD
Cesium 134	-1.5E-02 U	6.2E-02		1.2E-02 U	3.7E-02	1740	%RPD
Cesium 137	3.44E-01	9.1E-02		3.7E-01	1.1E-01	8	%RPD
Cobalt 60	0.0E+00 U	9.3E-02		-2.1E-02 U	8.4E-02	200	%RPD
Europium 152	8E-03 U	1.4E-01		0.0E+00 U	1.8E-01	200	%RPD
Europium 154	6E-03 U	4.7E-01		-10E-02 U	4.8E-01	228	%RPD
Lead 212	1.08E+00	1.8E-01		1.06E+00	2.0E-01	2	%RPD
Manganese 54	3.9E-02 U	5.9E-02		2.0E-02 U	7.8E-02	64	%RPD
Potassium 40	2.24E+01	2.9E+00		2.09E+01	2.9E+00	7	%RPD
Sodium 22	-2.0E-02 U	7.2E-02		1.1E-02 U	7.7E-02	708	%RPD
Thorium 232	1.43E+00	2.8E-01		1.38E+00	3.9E-01	4	%RPD
Uranium 235	1.3E-01 U	3.0E-01		7E-02 U	3.5E-01	58	%RPD
Uranium 238	8E-01 U	1.4E+00		1.1E+00 U	1.5E+00	35	%RPD
---Other Dedected Radionuclides---							
Actinium 228	1.43E+00	2.8E-01		1.38E+00	3.9E-01	4	%RPD
Bismuth 214	1.06E+00	2.9E-01		9.8E-01	2.2E-01	8	%RPD
Lead 214	9.4E-01	1.7E-01		9.4E-01	2.1E-01	0.2	%RPD
Thallium 208	4.18E-01	9.96E-02		4.1E-01	1.2E-01	1	%RPD
Batch #:		9245251 (Sample)		9245251 (Duplicate)			

NOTE(S)

Data are incomplete without the case narrative.
 Calculations are performed before rounding to avoid round-off error in calculated results

U Result is less than the sample detection limit.

Lot # F9H310106

uis
der Trail North
y, MO 63045
4.298.8566 fax 314.298.8757

Chain of Custody Record

CR 66



TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Alex Fischl				Site Contact: Margaret Milman-Barris				Date: 8-28-09				COC No:	
Shipping Company - SSFL		Tel/Fax: 925-627-4627				Lab Contact: Kay Clay				Carrier: FEDEX				1 of 1 COCs	
Bolsey Canyon Park, CA 91304		Analysis Turnaround Time Calendar (C) or Work Days (W) <u>W</u>				Gamma Spec by 901.1								Job No. -1804614-054502-AR 1006ABZ-05461	
Name: ISRA Waste Characterization		TAT if different from Below												SDG No.	
V		<input checked="" type="checkbox"/> 2 weeks (10 DAYS) <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day													
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.					Sample Specific Notes:				
C0062AS001 SP		8-28-09	13:38	SLEENE	SOIL	2	X								
C0065AS001 SP AR											AR				
C0066AS001 SP		8-28-09	14:02	SLEENE	SOIL	2	X								

Acid Used: (1= Ice) 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month):
 Return To Client Disposal By Lab Archive For 6 Months

Instructions/QC Requirements & Comments: Gamma Spec should include Na-22, K-40, Mn-54, Co-60, Cs-134, Cs-137, Eu-152, Eu-154, Th-228, Th-232, U-235, U-238 and Am-241.
V data package and CD shipped to MECX 12269 East Vassar Drive Aurora, CO 80014

Shipped by: <i>Allan M. R...</i>	Company: MWH	Date/Time: 8/28/09 15:10	Received by: <i>Craig...</i>	Company: TASTL	Date/Time: 8/29/09 0930
Shipped by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Shipped by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

10 OF 11

TestAmerica St. Louis

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F9H310106

CONDITION UPON RECEIPT FORM

Client: MWH

Quote No: 83913

COC/RFA No: N/A

Initiated By: CR

Date: ⁶⁶ 8/29/09 Time: 0930

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):*	Sample Temperature (s):**
1. <u>7978 9053 8374</u>	1. <u>2</u>
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____
7. _____	7. _____
8. _____	8. _____
9. _____	9. _____
10. _____	10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on the cooler?	8. <input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on bottles?
2. <input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Do custody seals on cooler appear to be tampered with?	9. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Do custody seals on bottles appear to be tampered with?
3. <input checked="" type="radio"/> Y <input type="radio"/> N	Were contents of cooler frisked after opening, but before unpacking?	10. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was sample received with proper pH? (If not, make note below)
4. <input checked="" type="radio"/> Y <input type="radio"/> N	Sample received with Chain of Custody?	11. <input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in proper containers?
5. <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6. <input type="radio"/> Y <input checked="" type="radio"/> N	Was sample received broken?	13. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was Internal COC/Workshare received?
7. <input checked="" type="radio"/> Y <input type="radio"/> N	Is sample volume sufficient for analysis?	14. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was pH taken by original TestAmerica lab?

¹ For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:

Client Contact Name: _____ Informed by: _____
 Sample(s) processed "as is"
 Sample(s) on hold until: _____ If released, notify: _____
 Project Management Review: Ray Oley Date: 09-02-09

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 10/21/08 \\slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

LABORATORY REPORT

Prepared For: The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project: ISRA HV Waste Characterization
1891614.05452

Sampled: 07/01/09
Received: 07/01/09
Issued: 07/15/09 13:38

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

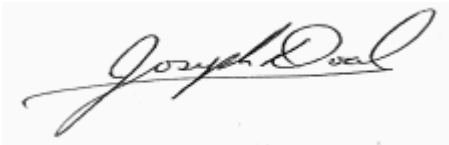
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
ISG0117-01	ISWC0020S001	Soil
ISG0117-02	ISWC0019S001	Soil
ISG0117-03	ISWC0023S001	Soil
ISG0117-04	ISWC0018S001	Soil
ISG0117-05	ISWC0022S001	Soil
ISG0117-06	ISWC0021S001	Soil
ISG0117-07	ISWC0017S001	Soil
ISG0117-08	ISWC0024S001	Soil

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0117-01 (ISWC0020S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	M2
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.8	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	120	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.72	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	13	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	6.4	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	7.6	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	7.2	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.82	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	8.3	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	23	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	43	1	07/06/09	07/06/09	

Sample ID: ISG0117-02 (ISWC0019S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.7	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	45	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.64	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	12	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	3.3	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	5.6	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	4.2	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.76	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	6.9	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/07/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	23	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	37	1	07/06/09	07/06/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0117-03 (ISWC0023S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	4.1	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	100	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.53	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	14	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	3.4	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	8.3	1	07/06/09	07/06/09	
Lead	EPA 6010B	9G06062	0.40	2.0	16	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.91	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	9.1	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/07/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	24	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	52	1	07/06/09	07/06/09	

Sample ID: ISG0117-04 (ISWC0018S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06062	1.8	20	ND	2	07/06/09	07/07/09	RL1
Arsenic	EPA 6010B	9G06062	1.6	4.0	13	2	07/06/09	07/07/09	
Barium	EPA 6010B	9G06062	1.6	2.0	68	2	07/06/09	07/07/09	
Beryllium	EPA 6010B	9G06062	0.40	1.0	0.96	2	07/06/09	07/07/09	RL1, J
Cadmium	EPA 6010B	9G06062	0.40	1.0	ND	2	07/06/09	07/07/09	RL1
Chromium	EPA 6010B	9G06062	0.60	2.0	27	2	07/06/09	07/07/09	
Cobalt	EPA 6010B	9G06062	0.60	2.0	8.0	2	07/06/09	07/07/09	
Copper	EPA 6010B	9G06062	0.76	4.0	23	2	07/06/09	07/07/09	
Lead	EPA 6010B	9G06062	0.80	4.0	24	2	07/06/09	07/07/09	
Molybdenum	EPA 6010B	9G06062	0.40	4.0	1.4	2	07/06/09	07/07/09	RL1, J
Nickel	EPA 6010B	9G06062	0.40	4.0	19	2	07/06/09	07/07/09	
Selenium	EPA 6010B	9G06062	2.0	4.0	ND	2	07/06/09	07/07/09	RL1
Silver	EPA 6010B	9G06062	1.6	2.0	ND	2	07/06/09	07/07/09	RL1
Thallium	EPA 6010B	9G06062	1.6	20	ND	2	07/06/09	07/07/09	RL1
Vanadium	EPA 6010B	9G06062	0.60	2.0	45	2	07/06/09	07/07/09	
Zinc	EPA 6010B	9G06062	1.5	10	73	2	07/06/09	07/07/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0117-05 (ISWC0022S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	4.2	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	55	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.62	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	15	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	3.8	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	6.2	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	5.1	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.69	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	8.8	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	26	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	35	1	07/06/09	07/06/09	

Sample ID: ISG0117-06 (ISWC0021S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	4.4	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	49	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.55	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	16	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	4.0	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	5.3	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	4.9	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.72	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	7.9	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	26	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	30	1	07/06/09	07/06/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0117-07 (ISWC0017S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.9	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	47	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.58	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	13	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	3.3	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	6.3	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	8.6	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.77	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	7.7	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	24	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	39	1	07/06/09	07/06/09	

Sample ID: ISG0117-08 (ISWC0024S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	4.5	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	49	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.63	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	15	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	3.3	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	6.2	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	4.3	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.67	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	8.1	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	26	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	40	1	07/06/09	07/06/09	

TestAmerica Irvine

Joseph Doak
Project Manager

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Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

SW846 7471A

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0117-01 (ISWC0020S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.01	1	07/09/09	07/09/09	J
Sample ID: ISG0117-02 (ISWC0019S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.012	1	07/09/09	07/09/09	J
Sample ID: ISG0117-03 (ISWC0023S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.013	1	07/09/09	07/09/09	J
Sample ID: ISG0117-04 (ISWC0018S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.018	1	07/09/09	07/09/09	J
Sample ID: ISG0117-05 (ISWC0022S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.017	1	07/09/09	07/09/09	J
Sample ID: ISG0117-06 (ISWC0021S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.015	1	07/09/09	07/09/09	J
Sample ID: ISG0117-07 (ISWC0017S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.013	1	07/09/09	07/09/09	J
Sample ID: ISG0117-08 (ISWC0024S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.0089	1	07/09/09	07/09/09	J

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
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Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0117-01 (ISWC0020S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	3.8	5.0	500	5.0
Barium	mg/kg	120	100	10000	100
Beryllium	mg/kg	0.72	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	13	5.0	2500	5.0
Cobalt	mg/kg	6.4	80	8000	
Copper	mg/kg	7.6	25	2500	
Lead	mg/kg	7.2	5.0	1000	5.0
Molybdenum	mg/kg	0.82	350	3500	
Nickel	mg/kg	8.3	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	23	24	2400	
Zinc	mg/kg	43	250	5000	
ISG0117-02 (ISWC0019S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	3.7	5.0	500	5.0
Barium	mg/kg	45	100	10000	100
Beryllium	mg/kg	0.64	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	12	5.0	2500	5.0
Cobalt	mg/kg	3.3	80	8000	
Copper	mg/kg	5.6	25	2500	
Lead	mg/kg	4.2	5.0	1000	5.0
Molybdenum	mg/kg	0.76	350	3500	
Nickel	mg/kg	6.9	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	23	24	2400	
Zinc	mg/kg	37	250	5000	

TestAmerica Irvine

Joseph Doak
Project Manager

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ISG0117 <Page 7 of 15>

The Boeing Company-SSFL
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1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0117-03 (ISWC0023S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.1	5.0	500	5.0
Barium	mg/kg	100	100	10000	100
Beryllium	mg/kg	0.53	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	14	5.0	2500	5.0
Cobalt	mg/kg	3.4	80	8000	
Copper	mg/kg	8.3	25	2500	
Lead	mg/kg	16	5.0	1000	5.0
Molybdenum	mg/kg	0.91	350	3500	
Nickel	mg/kg	9.1	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	24	24	2400	
Zinc	mg/kg	52	250	5000	
ISG0117-04 (ISWC0018S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	13	5.0	500	5.0
Barium	mg/kg	68	100	10000	100
Beryllium	mg/kg	0.96	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	27	5.0	2500	5.0
Cobalt	mg/kg	8.0	80	8000	
Copper	mg/kg	23	25	2500	
Lead	mg/kg	24	5.0	1000	5.0
Molybdenum	mg/kg	1.4	350	3500	
Nickel	mg/kg	19	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	45	24	2400	
Zinc	mg/kg	73	250	5000	

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POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0117-05 (ISWC0022S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.2	5.0	500	5.0
Barium	mg/kg	55	100	10000	100
Beryllium	mg/kg	0.62	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	15	5.0	2500	5.0
Cobalt	mg/kg	3.8	80	8000	
Copper	mg/kg	6.2	25	2500	
Lead	mg/kg	5.1	5.0	1000	5.0
Molybdenum	mg/kg	0.69	350	3500	
Nickel	mg/kg	8.8	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	26	24	2400	
Zinc	mg/kg	35	250	5000	
ISG0117-06 (ISWC0021S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.4	5.0	500	5.0
Barium	mg/kg	49	100	10000	100
Beryllium	mg/kg	0.55	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	16	5.0	2500	5.0
Cobalt	mg/kg	4.0	80	8000	
Copper	mg/kg	5.3	25	2500	
Lead	mg/kg	4.9	5.0	1000	5.0
Molybdenum	mg/kg	0.72	350	3500	
Nickel	mg/kg	7.9	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	26	24	2400	
Zinc	mg/kg	30	250	5000	

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POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0117-07 (ISWC0017S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	3.9	5.0	500	5.0
Barium	mg/kg	47	100	10000	100
Beryllium	mg/kg	0.58	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	13	5.0	2500	5.0
Cobalt	mg/kg	3.3	80	8000	
Copper	mg/kg	6.3	25	2500	
Lead	mg/kg	8.6	5.0	1000	5.0
Molybdenum	mg/kg	0.77	350	3500	
Nickel	mg/kg	7.7	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	24	24	2400	
Zinc	mg/kg	39	250	5000	
ISG0117-08 (ISWC0024S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.5	5.0	500	5.0
Barium	mg/kg	49	100	10000	100
Beryllium	mg/kg	0.63	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	15	5.0	2500	5.0
Cobalt	mg/kg	3.3	80	8000	
Copper	mg/kg	6.2	25	2500	
Lead	mg/kg	4.3	5.0	1000	5.0
Molybdenum	mg/kg	0.67	350	3500	
Nickel	mg/kg	8.1	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	26	24	2400	
Zinc	mg/kg	40	250	5000	

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1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: 9G06062 Extracted: 07/06/09											
Blank Analyzed: 07/06/2009-07/07/2009 (9G06062-BLK1)											
Antimony	ND	10	0.88	mg/kg							
Arsenic	ND	2.0	0.81	mg/kg							
Barium	ND	1.0	0.80	mg/kg							
Beryllium	ND	0.50	0.20	mg/kg							
Cadmium	ND	0.50	0.20	mg/kg							
Chromium	ND	1.0	0.30	mg/kg							
Cobalt	ND	1.0	0.30	mg/kg							
Copper	0.800	2.0	0.38	mg/kg							J
Lead	ND	2.0	0.40	mg/kg							
Molybdenum	ND	2.0	0.20	mg/kg							
Nickel	ND	2.0	0.20	mg/kg							
Selenium	ND	2.0	1.0	mg/kg							
Silver	ND	1.0	0.80	mg/kg							
Thallium	ND	10	0.80	mg/kg							
Vanadium	ND	1.0	0.30	mg/kg							
Zinc	2.13	5.0	0.75	mg/kg							J

LCS Analyzed: 07/06/2009 (9G06062-BS1)

Antimony	43.6	10	0.88	mg/kg	50.0		87	80-120
Arsenic	44.1	2.0	0.81	mg/kg	50.0		88	80-120
Barium	46.5	1.0	0.80	mg/kg	50.0		93	80-120
Beryllium	46.4	0.50	0.20	mg/kg	50.0		93	80-120
Cadmium	44.2	0.50	0.20	mg/kg	50.0		88	80-120
Chromium	44.8	1.0	0.30	mg/kg	50.0		90	80-120
Cobalt	44.1	1.0	0.30	mg/kg	50.0		88	80-120
Copper	47.5	2.0	0.38	mg/kg	50.0		95	80-120
Lead	45.3	2.0	0.40	mg/kg	50.0		91	80-120
Molybdenum	43.1	2.0	0.20	mg/kg	50.0		86	80-120
Nickel	45.4	2.0	0.20	mg/kg	50.0		91	80-120
Selenium	41.6	2.0	1.0	mg/kg	50.0		83	80-120
Silver	23.1	1.0	0.80	mg/kg	25.0		92	80-120
Thallium	45.5	10	0.80	mg/kg	50.0		91	80-120
Vanadium	46.2	1.0	0.30	mg/kg	50.0		92	80-120
Zinc	44.3	5.0	0.75	mg/kg	50.0		89	80-120

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9G06062 Extracted: 07/06/09											
Matrix Spike Analyzed: 07/06/2009 (9G06062-MS1)						Source: ISG0117-01					
Antimony	13.4	10	0.88	mg/kg	50.0	ND	27	75-125			M2
Arsenic	47.5	2.0	0.81	mg/kg	50.0	3.80	87	75-125			
Barium	160	1.0	0.80	mg/kg	50.0	118	83	75-125			
Beryllium	47.6	0.50	0.20	mg/kg	50.0	0.722	94	75-125			
Cadmium	44.3	0.50	0.20	mg/kg	50.0	ND	89	75-125			
Chromium	57.4	1.0	0.30	mg/kg	50.0	13.1	89	75-125			
Cobalt	49.8	1.0	0.30	mg/kg	50.0	6.43	87	75-125			
Copper	54.4	2.0	0.38	mg/kg	50.0	7.57	94	75-125			
Lead	52.9	2.0	0.40	mg/kg	50.0	7.15	91	75-125			
Molybdenum	41.8	2.0	0.20	mg/kg	50.0	0.820	82	75-125			
Nickel	53.1	2.0	0.20	mg/kg	50.0	8.29	90	75-125			
Selenium	41.0	2.0	1.0	mg/kg	50.0	ND	82	75-125			
Silver	23.0	1.0	0.80	mg/kg	25.0	ND	92	75-125			
Thallium	43.7	10	0.80	mg/kg	50.0	ND	87	75-125			
Vanadium	69.3	1.0	0.30	mg/kg	50.0	23.2	92	75-125			
Zinc	87.5	5.0	0.75	mg/kg	50.0	42.8	89	75-125			
Matrix Spike Dup Analyzed: 07/06/2009 (9G06062-MSD1)						Source: ISG0117-01					
Antimony	15.2	10	0.88	mg/kg	50.0	ND	30	75-125	12	20	M2
Arsenic	48.2	2.0	0.81	mg/kg	50.0	3.80	89	75-125	1	20	
Barium	168	1.0	0.80	mg/kg	50.0	118	99	75-125	5	20	
Beryllium	48.1	0.50	0.20	mg/kg	50.0	0.722	95	75-125	1	20	
Cadmium	45.1	0.50	0.20	mg/kg	50.0	ND	90	75-125	2	20	
Chromium	58.8	1.0	0.30	mg/kg	50.0	13.1	91	75-125	2	20	
Cobalt	51.3	1.0	0.30	mg/kg	50.0	6.43	90	75-125	3	20	
Copper	55.8	2.0	0.38	mg/kg	50.0	7.57	96	75-125	3	20	
Lead	53.1	2.0	0.40	mg/kg	50.0	7.15	92	75-125	0	20	
Molybdenum	42.6	2.0	0.20	mg/kg	50.0	0.820	84	75-125	2	20	
Nickel	53.5	2.0	0.20	mg/kg	50.0	8.29	90	75-125	1	20	
Selenium	42.0	2.0	1.0	mg/kg	50.0	ND	84	75-125	2	20	
Silver	23.3	1.0	0.80	mg/kg	25.0	ND	93	75-125	1	20	
Thallium	44.2	10	0.80	mg/kg	50.0	ND	88	75-125	1	20	
Vanadium	71.5	1.0	0.30	mg/kg	50.0	23.2	97	75-125	3	20	
Zinc	90.1	5.0	0.75	mg/kg	50.0	42.8	95	75-125	3	20	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

SW846 7471A

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9189356 Extracted: 07/09/09											
Matrix Spike Dup Analyzed: 07/09/2009 (D9G070277001D)						Source: ISG0117-01					
Mercury	0.368	0.033	0.0055	mg/kg	0.41	0.01	87	87-111	7	20	
Matrix Spike Analyzed: 07/09/2009 (D9G070277001S)						Source: ISG0117-01					
Mercury	0.394	0.033	0.0055	mg/kg	0.41	0.01	94	87-111	7	20	
Blank Analyzed: 07/09/2009 (D9G080000356B)						Source:					
Mercury	ND	0.033	0.0055	mg/kg				-			
LCS Analyzed: 07/09/2009 (D9G080000356C)						Source:					
Mercury	0.364	0.033	0.0055	mg/kg	0.417		87	87-111			

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- RL1** Reporting limit raised due to sample matrix effects.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

ISG0117 <Page 14 of 15>

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: SW846 7471A

Samples: ISG0117-01, ISG0117-02, ISG0117-03, ISG0117-04, ISG0117-05, ISG0117-06, ISG0117-07,
ISG0117-08

TestAmerica Irvine

Joseph Doak
Project Manager

Chain of Custody Record

IS00117

TestAmerica Laboratories, Inc.

COC No. _____

Job No. _____

Date: **7-1-09**

Carrier: **COMPTON**

SDG No. **1891614.05452**

Site Contact: Shelby Valenzuela

Lab Contact: Joe Doak

Project Manager: Tom Venable

Tel/Fax: 818-466-8779 / 818-466-4873

Analysis Turnaround Time

Calendar (C) or Work Days (W) **C**

TAT if different from Below

2 weeks

1 week

2 days

1 day

ISRA HV WASTE CHARACTERIZATION

Project Name: **ISRA HV WASTE CHARACTERIZATION**

Site: Happy Valley

PO # 7KSSISRA

Sample Identification

Sample Date

Sample Time

Sample Type

Matrix

of Cont.

Sample Specific Notes:

ISRA - HNS-2C

7-1-09 12:02

7-1-09 12:30

7-1-09 12:38

7-1-09 12:48

7-1-09 13:02

7-1-09 13:12

7-1-09 13:23

7-1-09 13:33

0.06

1.25

7-1-09

CR

CR

CR

CR

CR

CR

CR

Project Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client

Disposal By Lab

Archive For **6** Months

Special Instructions/QC Requirements & Comments: Run STLC (WET) / TCLP if TTLC results ≥ 10x STLC / 20x TCLP thresholds

Received by: **Shelby Valenzuela**

Date/Time: **1505/7/09**

Company: **THW**

Received by: **Tom Venable**

Date/Time: **7-1-09/18:30**

Company: **Test America**

Received by: **Joe Doak**

Date/Time: **7-1-09/15:05**

Company: **Test America**

Received by: **Tom Venable**

Date/Time: **7-1-09/15:05**

Company: **Test America**

Received by: **Tom Venable**

Date/Time: **7-1-09/15:05**

Company: **Test America**

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Company: **Test America**

Received by: **Tom Venable**

Date/Time: **7-1-09/15:05**

Company: **Test America**

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9G070277

Project ISG0117

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.

Dee Kettula
for DiLea Griego
Project Manager

July 14, 2009

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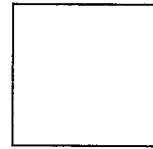
Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

(The Report Cover page is considered an integral part of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)



- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **QC Results**
- **Sample Receiving Checklist**
- **Chain of Custody**

Case Narrative

Enclosed is the report for eight samples received at the TestAmerica Laboratory in Denver on July 7, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D9G070277

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 1.2°C.

Total Metals – Method 7471A

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9G070277

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
ISG0117-01 07/01/09 12:02 001 Mercury	0.010 J	0.033	mg/kg	SW846 7471A
ISG0117-02 07/01/09 12:26 002 Mercury	0.012 J	0.033	mg/kg	SW846 7471A
ISG0117-03 07/01/09 12:38 003 Mercury	0.013 J	0.033	mg/kg	SW846 7471A
ISG0117-04 07/01/09 12:48 004 Mercury	0.018 J	0.033	mg/kg	SW846 7471A
ISG0117-05 07/01/09 13:02 005 Mercury	0.017 J	0.033	mg/kg	SW846 7471A
ISG0117-06 07/01/09 13:12 006 Mercury	0.015 J	0.033	mg/kg	SW846 7471A
ISG0117-07 07/01/09 13:23 007 Mercury	0.013 J	0.033	mg/kg	SW846 7471A
ISG0117-08 07/01/09 13:33 008 Mercury	0.0089 J	0.033	mg/kg	SW846 7471A

METHODS SUMMARY

D9G070277

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9G070277

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 7471A	Christopher Grisdale	9582

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9G070277

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LF5XJ	001	ISG0117-01	07/01/09	12:02
LF5XM	002	ISG0117-02	07/01/09	12:26
LF5XN	003	ISG0117-03	07/01/09	12:38
LF5XQ	004	ISG0117-04	07/01/09	12:48
LF5XR	005	ISG0117-05	07/01/09	13:02
LF5XV	006	ISG0117-06	07/01/09	13:12
LF5X0	007	ISG0117-07	07/01/09	13:23
LF5X1	008	ISG0117-08	07/01/09	13:33

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ISG0117-01

TOTAL Metals

Lot-Sample #...: D9G070277-001

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:02 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.010 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XJ1AA
		Dilution Factor: 1		Analysis Time...: 13:07	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-02

TOTAL Metals

Lot-Sample #...: D9G070277-002

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:26 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.012 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XM1AA
		Dilution Factor: 1		Analysis Time...: 13:18	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-03

TOTAL Metals

Lot-Sample #...: D9G070277-003

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:38 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.013 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XN1AA
		Dilution Factor: 1		Analysis Time...: 13:25	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-04

TOTAL Metals

Lot-Sample #...: D9G070277-004

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:48 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.018 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XQ1AA
		Dilution Factor: 1		Analysis Time...: 13:27	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-05

TOTAL Metals

Lot-Sample #...: D9G070277-005

Matrix.....: SOLID

Date Sampled...: 07/01/09 13:02 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>			<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.017 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XR1AA
		Dilution Factor: 1		Analysis Time...: 13:30	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-06

TOTAL Metals

Lot-Sample #...: D9G070277-006

Matrix.....: SOLID

Date Sampled...: 07/01/09 13:12 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.015 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XV1AA
		Dilution Factor: 1		Analysis Time...: 13:32	MDL.....: 0.0055	

NOTE (S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-07

TOTAL Metals

Lot-Sample #...: D9G070277-007

Matrix.....: SOLID

Date Sampled...: 07/01/09 13:23 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.013 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X01AA
		Dilution Factor: 1		Analysis Time...: 13:34	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-08

TOTAL Metals

Lot-Sample #....: D9G070277-008

Matrix.....: SOLID

Date Sampled....: 07/01/09 13:33 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>			<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #....: 9189356						
Mercury	0.0089 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X11AA
		Dilution Factor: 1		Analysis Time...: 13:37	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

QC DATA ASSOCIATION SUMMARY

D9G070277

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 7471A		9189356	9189207
002	SOLID	SW846 7471A		9189356	9189207
003	SOLID	SW846 7471A		9189356	9189207
004	SOLID	SW846 7471A		9189356	9189207
005	SOLID	SW846 7471A		9189356	9189207
006	SOLID	SW846 7471A		9189356	9189207
007	SOLID	SW846 7471A		9189356	9189207
008	SOLID	SW846 7471A		9189356	9189207

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D9G070277

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MB Lot-Sample #: D9G080000-356		Prep Batch #...: 9189356				
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF64P1AA
		Dilution Factor: 1				
		Analysis Time...: 13:02				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070277

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#:	D9G080000-356	Prep Batch #...	9189356		
Mercury	87	(87 - 111)	SW846 7471A	07/09/09	LF64P1AC
		Dilution Factor: 1	Analysis Time...: 13:04		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070277

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
------------------	-------------------------------	----------------------------------	--------------	--------------------------------	---------------	---	-------------------------------

LCS Lot-Sample#: D9G080000-356 Prep Batch #...: 9189356

Mercury	0.417	0.364	mg/kg	87	SW846 7471A	07/09/09	LF64P1AC
---------	-------	-------	-------	----	-------------	----------	----------

Dilution Factor: 1 Analysis Time...: 13:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070277

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:02 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MS Lot-Sample #: D9G070277-001 Prep Batch #...: 9189356							
Mercury	94	(87 - 111)			SW846 7471A	07/09/09	LF5XJ1AC
	87	(87 - 111)	6.8	(0-20)	SW846 7471A	07/09/09	LF5XJ1AD
			Dilution Factor: 1				
			Analysis Time...: 13:09				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070277

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:02 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MS Lot-Sample #:	D9G070277-001		Prep Batch #...: 9189356						
Mercury	0.010	0.410	0.394	mg/kg	94		SW846 7471A	07/09/09	LF5XJ1AC
	0.010	0.410	0.368	mg/kg	87	6.8	SW846 7471A	07/09/09	LF5XJ1AD

Dilution Factor: 1
Analysis Time...: 13:09

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Sample Receiving Checklist

Lot #: D96070277 Date/Time Received: 7/7/09 0830

Company Name & Sampling Site: TA IRVINE - BOEING

PM to Complete This Section: Yes No
Residual chlorine check required: Quarantined:

Quote #: 72743

Special Instructions: Set A & R to 7/15

Time Zone: EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____
Temperatures (°C): 1.2°C _____

- | N/A | | Yes | No | Initials |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-----------|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <u>lc</u> |
| | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
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| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
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| | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |

TestAmerica Denver
Sample Receiving Checklist

Lot # D9G070277

Login Checks:

Initials

LS

N/A Yes No

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? 1
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

LC

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

SUBCONTRACT ORDER

1.2°

TestAmerica Irvine

ISG0117

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: The Boeing Company-SSFL

RECEIVING LABORATORY:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone : (303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature: °C Ice: Y / N

Table with columns: Analysis, Units, Due, Expires, Interlab Price, Surch, Comments. Contains 6 sample entries (ISG0117-01 to ISG0117-06) for Mercury-7470/7471-OUT soil samples, each with a 4 oz Jar (B) container and a price of \$35.00.

Released By: Olga Ornelas 7/6/09 17:00

Received By: [Signature] Fedex 7/6/09 17:00

Released By: TestAmerica Denver

Received By: Lisa Maloos 7/7/09 08:30

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0117

Analysis	Units	Due	Expires	Interlab	Price Surch	Comments
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Sample ID: ISG0117-07 **Soil** **Sampled: 07/01/09 13:23**

Mercury-7470/7471-OUT		07/13/09	07/29/09 13:23	\$35.00	0%	J Flags/Boeing/sub to denver
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Containers Supplied:
4 oz Jar (B)

Sample ID: ISG0117-08 **Soil** **Sampled: 07/01/09 13:33**

Mercury-7470/7471-OUT		07/13/09	07/29/09 13:33	\$35.00	0%	J Flags/Boeing/sub to denver
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Containers Supplied:
4 oz Jar (B)

LABORATORY REPORT

Prepared For: The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project: ISRA HV Waste Characterization
1891614.05452

Sampled: 07/01/09
Received: 07/01/09
Issued: 07/28/09 11:43

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

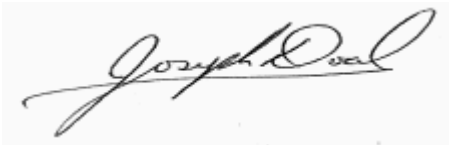
SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: This is an amended report to include samples to be reported per the client's request. Samples included: ISG0117-04, -05, -06, -07

LABORATORY ID	CLIENT ID	MATRIX
ISG0117-04	HZBS0155S001	Soil
ISG0117-05	HZBS0157S001	Soil
ISG0117-06	HZBS0156S001	Soil
ISG0117-07	HZBS0154S001	Soil

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0117-04 (HZBS0155S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	1.8	20	ND	2	07/06/09	07/07/09	RL1
Arsenic	EPA 6010B	9G06062	1.6	4.0	13	2	07/06/09	07/07/09	
Barium	EPA 6010B	9G06062	1.6	2.0	68	2	07/06/09	07/07/09	
Beryllium	EPA 6010B	9G06062	0.40	1.0	0.96	2	07/06/09	07/07/09	RL1, J
Cadmium	EPA 6010B	9G06062	0.40	1.0	ND	2	07/06/09	07/07/09	RL1
Chromium	EPA 6010B	9G06062	0.60	2.0	27	2	07/06/09	07/07/09	
Cobalt	EPA 6010B	9G06062	0.60	2.0	8.0	2	07/06/09	07/07/09	
Copper	EPA 6010B	9G06062	0.76	4.0	23	2	07/06/09	07/07/09	
Lead	EPA 6010B	9G06062	0.80	4.0	24	2	07/06/09	07/07/09	
Molybdenum	EPA 6010B	9G06062	0.40	4.0	1.4	2	07/06/09	07/07/09	RL1, J
Nickel	EPA 6010B	9G06062	0.40	4.0	19	2	07/06/09	07/07/09	
Selenium	EPA 6010B	9G06062	2.0	4.0	ND	2	07/06/09	07/07/09	RL1
Silver	EPA 6010B	9G06062	1.6	2.0	ND	2	07/06/09	07/07/09	RL1
Thallium	EPA 6010B	9G06062	1.6	20	ND	2	07/06/09	07/07/09	RL1
Vanadium	EPA 6010B	9G06062	0.60	2.0	45	2	07/06/09	07/07/09	
Zinc	EPA 6010B	9G06062	1.5	10	73	2	07/06/09	07/07/09	

Sample ID: ISG0117-05 (HZBS0157S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	4.2	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	55	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.62	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	15	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	3.8	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	6.2	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	5.1	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.69	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	8.8	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	26	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	35	1	07/06/09	07/06/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0117-06 (HZBS0156S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	4.4	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	49	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.55	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	16	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	4.0	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	5.3	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	4.9	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.72	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	7.9	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	26	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	30	1	07/06/09	07/06/09	

Sample ID: ISG0117-07 (HZBS0154S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.9	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	47	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.58	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	13	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	3.3	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	6.3	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	8.6	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.77	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	7.7	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	24	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	39	1	07/06/09	07/06/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304-1148
 Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
 1891614.05452
 Report Number: ISG0117

Sampled: 07/01/09
 Received: 07/01/09

SW846 7471A

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0117-04 (HZBS0155S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.018	1	07/09/09	07/09/09	J
Sample ID: ISG0117-05 (HZBS0157S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.017	1	07/09/09	07/09/09	J
Sample ID: ISG0117-06 (HZBS0156S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.015	1	07/09/09	07/09/09	J
Sample ID: ISG0117-07 (HZBS0154S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.013	1	07/09/09	07/09/09	J

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD RPD	Data Qualifiers
Batch: 9G06062 Extracted: 07/06/09										
Blank Analyzed: 07/06/2009-07/07/2009 (9G06062-BLK1)										
Antimony	ND	10	0.88	mg/kg						
Arsenic	ND	2.0	0.81	mg/kg						
Barium	ND	1.0	0.80	mg/kg						
Beryllium	ND	0.50	0.20	mg/kg						
Cadmium	ND	0.50	0.20	mg/kg						
Chromium	ND	1.0	0.30	mg/kg						
Cobalt	ND	1.0	0.30	mg/kg						
Copper	0.800	2.0	0.38	mg/kg						J
Lead	ND	2.0	0.40	mg/kg						
Molybdenum	ND	2.0	0.20	mg/kg						
Nickel	ND	2.0	0.20	mg/kg						
Selenium	ND	2.0	1.0	mg/kg						
Silver	ND	1.0	0.80	mg/kg						
Thallium	ND	10	0.80	mg/kg						
Vanadium	ND	1.0	0.30	mg/kg						
Zinc	2.13	5.0	0.75	mg/kg						J

LCS Analyzed: 07/06/2009 (9G06062-BS1)

Antimony	43.6	10	0.88	mg/kg	50.0		87	80-120
Arsenic	44.1	2.0	0.81	mg/kg	50.0		88	80-120
Barium	46.5	1.0	0.80	mg/kg	50.0		93	80-120
Beryllium	46.4	0.50	0.20	mg/kg	50.0		93	80-120
Cadmium	44.2	0.50	0.20	mg/kg	50.0		88	80-120
Chromium	44.8	1.0	0.30	mg/kg	50.0		90	80-120
Cobalt	44.1	1.0	0.30	mg/kg	50.0		88	80-120
Copper	47.5	2.0	0.38	mg/kg	50.0		95	80-120
Lead	45.3	2.0	0.40	mg/kg	50.0		91	80-120
Molybdenum	43.1	2.0	0.20	mg/kg	50.0		86	80-120
Nickel	45.4	2.0	0.20	mg/kg	50.0		91	80-120
Selenium	41.6	2.0	1.0	mg/kg	50.0		83	80-120
Silver	23.1	1.0	0.80	mg/kg	25.0		92	80-120
Thallium	45.5	10	0.80	mg/kg	50.0		91	80-120
Vanadium	46.2	1.0	0.30	mg/kg	50.0		92	80-120
Zinc	44.3	5.0	0.75	mg/kg	50.0		89	80-120

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9G06062 Extracted: 07/06/09											
Matrix Spike Analyzed: 07/06/2009 (9G06062-MS1)						Source: ISG0117-01					
Antimony	13.4	10	0.88	mg/kg	50.0	ND	27	75-125			M2
Arsenic	47.5	2.0	0.81	mg/kg	50.0	3.80	87	75-125			
Barium	160	1.0	0.80	mg/kg	50.0	118	83	75-125			
Beryllium	47.6	0.50	0.20	mg/kg	50.0	0.722	94	75-125			
Cadmium	44.3	0.50	0.20	mg/kg	50.0	ND	89	75-125			
Chromium	57.4	1.0	0.30	mg/kg	50.0	13.1	89	75-125			
Cobalt	49.8	1.0	0.30	mg/kg	50.0	6.43	87	75-125			
Copper	54.4	2.0	0.38	mg/kg	50.0	7.57	94	75-125			
Lead	52.9	2.0	0.40	mg/kg	50.0	7.15	91	75-125			
Molybdenum	41.8	2.0	0.20	mg/kg	50.0	0.820	82	75-125			
Nickel	53.1	2.0	0.20	mg/kg	50.0	8.29	90	75-125			
Selenium	41.0	2.0	1.0	mg/kg	50.0	ND	82	75-125			
Silver	23.0	1.0	0.80	mg/kg	25.0	ND	92	75-125			
Thallium	43.7	10	0.80	mg/kg	50.0	ND	87	75-125			
Vanadium	69.3	1.0	0.30	mg/kg	50.0	23.2	92	75-125			
Zinc	87.5	5.0	0.75	mg/kg	50.0	42.8	89	75-125			
Matrix Spike Dup Analyzed: 07/06/2009 (9G06062-MSD1)						Source: ISG0117-01					
Antimony	15.2	10	0.88	mg/kg	50.0	ND	30	75-125	12	20	M2
Arsenic	48.2	2.0	0.81	mg/kg	50.0	3.80	89	75-125	1	20	
Barium	168	1.0	0.80	mg/kg	50.0	118	99	75-125	5	20	
Beryllium	48.1	0.50	0.20	mg/kg	50.0	0.722	95	75-125	1	20	
Cadmium	45.1	0.50	0.20	mg/kg	50.0	ND	90	75-125	2	20	
Chromium	58.8	1.0	0.30	mg/kg	50.0	13.1	91	75-125	2	20	
Cobalt	51.3	1.0	0.30	mg/kg	50.0	6.43	90	75-125	3	20	
Copper	55.8	2.0	0.38	mg/kg	50.0	7.57	96	75-125	3	20	
Lead	53.1	2.0	0.40	mg/kg	50.0	7.15	92	75-125	0	20	
Molybdenum	42.6	2.0	0.20	mg/kg	50.0	0.820	84	75-125	2	20	
Nickel	53.5	2.0	0.20	mg/kg	50.0	8.29	90	75-125	1	20	
Selenium	42.0	2.0	1.0	mg/kg	50.0	ND	84	75-125	2	20	
Silver	23.3	1.0	0.80	mg/kg	25.0	ND	93	75-125	1	20	
Thallium	44.2	10	0.80	mg/kg	50.0	ND	88	75-125	1	20	
Vanadium	71.5	1.0	0.30	mg/kg	50.0	23.2	97	75-125	3	20	
Zinc	90.1	5.0	0.75	mg/kg	50.0	42.8	95	75-125	3	20	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304-1148
 Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
 1891614.05452
 Report Number: ISG0117

Sampled: 07/01/09
 Received: 07/01/09

METHOD BLANK/QC DATA

SW846 7471A

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9189356 Extracted: 07/09/09											
Matrix Spike Dup Analyzed: 07/09/2009 (D9G070277001D)						Source: D9G070277001					
Mercury	0.368	0.033	0.0055	mg/kg	0.41	0.01	87	87-111	7	20	
Matrix Spike Analyzed: 07/09/2009 (D9G070277001S)						Source: D9G070277001					
Mercury	0.394	0.033	0.0055	mg/kg	0.41	0.01	94	87-111	7	20	
Blank Analyzed: 07/09/2009 (D9G080000356B)						Source:					
Mercury	ND	0.033	0.0055	mg/kg				-			
LCS Analyzed: 07/09/2009 (D9G080000356C)						Source:					
Mercury	0.364	0.033	0.0055	mg/kg	0.417		87	87-111			

TestAmerica Irvine

Joseph Doak
 Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- RL1** Reporting limit raised due to sample matrix effects.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

ISG0117 <Page 8 of 9>

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0117

Sampled: 07/01/09
Received: 07/01/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: SW846 7471A

Samples: ISG0117-04, ISG0117-05, ISG0117-06, ISG0117-07

TestAmerica Irvine

Joseph Doak
Project Manager

IRVINE
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.
COC No: _____

Job No: **1891014.05452**
SDG No: _____

Site Contact: Shelby Valenzuela
Lab Contact: Joe Doak
Date: **7-1-09**
Carrier: **COMPTON**

Project Manager: Tom Venable
Tel/Fax: 818-466-8779 / 818-466-4873
Analysis Turnaround Time
Calendar (C) or Work Days (W) **C**

Client Contact
The Boeing Company SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304
Phone: _____
FAX: _____
Project Name: **ISRA HV WASTE CHARACTERIZATION**
Site: Happy Valley
PO # 7KSSISRA

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:
15MC00205001	7-1-09	12:02	S-S. SAMPLE	SOIL	1	
15MC00195001	7-1-09	12:30			1	
15MC00235001	7-1-09	12:38			1	
15MC00185001	7-1-09	12:48			1	
15MC00225001	7-1-09	13:02			1	
15MC00215001	7-1-09	13:12			1	
15MC00175001	7-1-09	13:23			1	
15MC00245001	7-1-09	13:33			1	

Preservation Used: (1= Ice; 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other) _____
 Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments: Run STLC (WET) / TCLP if TTLC results ≥ 10x STLC / 20x TCLP thresholds
 Return To Client Disposal By Lab Archive For _____ Months
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	THW	1505/16:09		Test America	7-1-09 / 15:05
	Test America	7-1-09 / 18:30		THW	7-1-09 / 18:30
	Test America	7-1-09 / 18:30		THW	7-1-09 / 18:30

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9G070277

Project ISG0117

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.

Dee Kettula
for DiLea Griego
Project Manager

July 14, 2009

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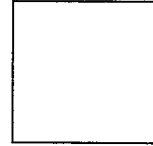
Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

(The Report Cover page is considered an integral part of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)



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- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **QC Results**
- **Sample Receiving Checklist**
- **Chain of Custody**

Case Narrative

Enclosed is the report for eight samples received at the TestAmerica Laboratory in Denver on July 7, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

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Quality Control Summary for Lot D9G070277

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 1.2°C.

Total Metals – Method 7471A

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9G070277

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
ISG0117-01 07/01/09 12:02 001 Mercury	0.010 J	0.033	mg/kg	SW846 7471A
ISG0117-02 07/01/09 12:26 002 Mercury	0.012 J	0.033	mg/kg	SW846 7471A
ISG0117-03 07/01/09 12:38 003 Mercury	0.013 J	0.033	mg/kg	SW846 7471A
ISG0117-04 07/01/09 12:48 004 Mercury	0.018 J	0.033	mg/kg	SW846 7471A
ISG0117-05 07/01/09 13:02 005 Mercury	0.017 J	0.033	mg/kg	SW846 7471A
ISG0117-06 07/01/09 13:12 006 Mercury	0.015 J	0.033	mg/kg	SW846 7471A
ISG0117-07 07/01/09 13:23 007 Mercury	0.013 J	0.033	mg/kg	SW846 7471A
ISG0117-08 07/01/09 13:33 008 Mercury	0.0089 J	0.033	mg/kg	SW846 7471A

METHODS SUMMARY

D9G070277

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9G070277

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 7471A	Christopher Grisdale	9582

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9G070277

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LF5XJ	001	ISG0117-01	07/01/09	12:02
LF5XM	002	ISG0117-02	07/01/09	12:26
LF5XN	003	ISG0117-03	07/01/09	12:38
LF5XQ	004	ISG0117-04	07/01/09	12:48
LF5XR	005	ISG0117-05	07/01/09	13:02
LF5XV	006	ISG0117-06	07/01/09	13:12
LF5X0	007	ISG0117-07	07/01/09	13:23
LF5X1	008	ISG0117-08	07/01/09	13:33

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ISG0117-01

TOTAL Metals

Lot-Sample #...: D9G070277-001

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:02 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.010 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XJ1AA
		Dilution Factor: 1		Analysis Time...: 13:07	MDL.....: 0.0055	

NOTE(S):

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-02

TOTAL Metals

Lot-Sample #...: D9G070277-002

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:26 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.012 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XM1AA
		Dilution Factor: 1		Analysis Time...: 13:18	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-03

TOTAL Metals

Lot-Sample #...: D9G070277-003

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:38 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.013 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XN1AA
		Dilution Factor: 1		Analysis Time...: 13:25	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-04

TOTAL Metals

Lot-Sample #...: D9G070277-004

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:48 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.018 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XQ1AA
		Dilution Factor: 1		Analysis Time...: 13:27	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-05

TOTAL Metals

Lot-Sample #...: D9G070277-005

Matrix.....: SOLID

Date Sampled...: 07/01/09 13:02 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.017 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XR1AA
		Dilution Factor: 1		Analysis Time...: 13:30	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-06

TOTAL Metals

Lot-Sample #...: D9G070277-006

Matrix.....: SOLID

Date Sampled...: 07/01/09 13:12 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.015 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XV1AA
		Dilution Factor: 1		Analysis Time...: 13:32	MDL.....: 0.0055	

NOTE (S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-07

TOTAL Metals

Lot-Sample #...: D9G070277-007

Matrix.....: SOLID

Date Sampled...: 07/01/09 13:23 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.013 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X01AA
		Dilution Factor: 1		Analysis Time...: 13:34	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0117-08

TOTAL Metals

Lot-Sample #....: D9G070277-008

Matrix.....: SOLID

Date Sampled....: 07/01/09 13:33 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>			<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #....: 9189356						
Mercury	0.0089 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X11AA
		Dilution Factor: 1		Analysis Time...: 13:37	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

QC DATA ASSOCIATION SUMMARY

D9G070277

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 7471A		9189356	9189207
002	SOLID	SW846 7471A		9189356	9189207
003	SOLID	SW846 7471A		9189356	9189207
004	SOLID	SW846 7471A		9189356	9189207
005	SOLID	SW846 7471A		9189356	9189207
006	SOLID	SW846 7471A		9189356	9189207
007	SOLID	SW846 7471A		9189356	9189207
008	SOLID	SW846 7471A		9189356	9189207

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D9G070277

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MB Lot-Sample #: D9G080000-356		Prep Batch #...: 9189356				
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF64P1AA
		Dilution Factor: 1				
		Analysis Time...: 13:02				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070277

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#:	D9G080000-356	Prep Batch #...	9189356		
Mercury	87	(87 - 111)	SW846 7471A	07/09/09	LF64P1AC
		Dilution Factor: 1	Analysis Time...: 13:04		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070277

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
------------------	-------------------------------	----------------------------------	--------------	--------------------------------	---------------	---	-------------------------------

LCS Lot-Sample#: D9G080000-356 Prep Batch #...: 9189356

Mercury	0.417	0.364	mg/kg	87	SW846 7471A	07/09/09	LF64P1AC
			Dilution Factor: 1		Analysis Time...: 13:04		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070277

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:02 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MS Lot-Sample #: D9G070277-001 Prep Batch #...: 9189356							
Mercury	94	(87 - 111)			SW846 7471A	07/09/09	LF5XJ1AC
	87	(87 - 111)	6.8	(0-20)	SW846 7471A	07/09/09	LF5XJ1AD
			Dilution Factor: 1				
			Analysis Time...: 13:09				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070277

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:02 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MS Lot-Sample #:	D9G070277-001		Prep Batch #...: 9189356						
Mercury	0.010	0.410	0.394	mg/kg	94		SW846 7471A	07/09/09	LF5XJ1AC
	0.010	0.410	0.368	mg/kg	87	6.8	SW846 7471A	07/09/09	LF5XJ1AD

Dilution Factor: 1
Analysis Time...: 13:09

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Sample Receiving Checklist

Lot #: D96070277 Date/Time Received: 7/7/09 0830

Company Name & Sampling Site: TA IRVINE - BOEING

PM to Complete This Section: Yes No
Residual chlorine check required: Quarantined:

Quote #: 72743

Special Instructions:

Set A & R to 7/15

Time Zone:

EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 1.2°C _____

N/A Yes No

Initials

lc

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: No:
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative HCl 4±2°C Sodium Thiosulfate Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver
Sample Receiving Checklist

Lot # D9G070277

Login Checks:

Initials

LS

N/A Yes No

19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
22. Were special log in instructions read and followed?
23. Were AFCEE metals logged for refrigerated storage?
24. Were tests logged checked against the COC? Which samples were confirmed? 1
25. Was a Rush form completed for quick TAT?
26. Was a Short Hold form completed for any short holds?
27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

LC

28. Was the subcontract COC signed and sent with samples to bottle prep?
29. Were sample labels double-checked by a second person?
30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
31. Did the sample ID, Date, and Time from label match what was logged?
32. Were stickers for special archiving instructions affixed to each box? See #27
33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

SUBCONTRACT ORDER

1.2°

TestAmerica Irvine

ISG0117

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: The Boeing Company-SSFL

RECEIVING LABORATORY:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone : (303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature: °C Ice: Y / N

Table with columns: Analysis, Units, Due, Expires, Interlab Price, Surch, Comments. Contains 6 sample entries (ISG0117-01 to ISG0117-06) for Mercury-7470/7471-OUT soil samples, each with a 4 oz Jar (B) container and a price of \$35.00.

Released By: Olga Ornelas 7/6/09 17:00

Received By: [Signature] Fedex 7/6/09 17:00

Released By: TestAmerica Denver Date/Time

Received By: [Signature] 7/7/09 08:30

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0117

Analysis	Units	Due	Expires	Interlab	Price Surch	Comments
----------	-------	-----	---------	----------	-------------	----------

Sample ID: ISG0117-07 **Soil** **Sampled: 07/01/09 13:23**

Mercury-7470/7471-OUT		07/13/09	07/29/09 13:23	\$35.00	0%	J Flags/Boeing/sub to denver
-----------------------	--	----------	----------------	---------	----	------------------------------

Containers Supplied:
4 oz Jar (B)

Sample ID: ISG0117-08 **Soil** **Sampled: 07/01/09 13:33**

Mercury-7470/7471-OUT		07/13/09	07/29/09 13:33	\$35.00	0%	J Flags/Boeing/sub to denver
-----------------------	--	----------	----------------	---------	----	------------------------------

Containers Supplied:
4 oz Jar (B)

LABORATORY REPORT

Prepared For: The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project: ISRA HV Waste Characterization
1891614.05452

Sampled: 07/01/09
Received: 07/01/09
Issued: 07/15/09 13:46

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

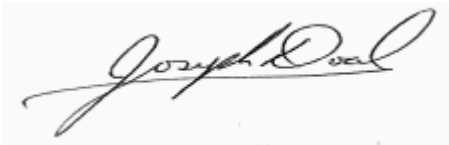
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
ISG0118-01	ISWC0025 S001	Soil
ISG0118-02	ISWC0026 S001	Soil
ISG0118-03	ISWC0027 S001	Soil
ISG0118-04	ISWC0028 S001	Soil
ISG0118-05	ISWC0029 S001	Soil
ISG0118-06	ISWC0030 S001	Soil
ISG0118-07	ISWC0031 S001	Soil
ISG0118-08	ISWC0032 S001	Soil

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0118-01 (ISWC0025 S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.0	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	88	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.49	1	07/06/09	07/06/09	J
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	12	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	4.9	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	11	1	07/06/09	07/06/09	
Lead	EPA 6010B	9G06062	0.40	2.0	11	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.83	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	8.4	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	28	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	54	1	07/06/09	07/06/09	

Sample ID: ISG0118-02 (ISWC0026 S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	4.0	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	60	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.55	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	11	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	4.3	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	7.8	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	10	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.71	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	8.1	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/07/09	
Silver	EPA 6010B	9G06062	0.80	1.0	2.3	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	21	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	38	1	07/06/09	07/06/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0118-03 (ISWC0027 S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	4.0	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	62	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.64	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	13	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	4.2	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	8.3	1	07/06/09	07/06/09	
Lead	EPA 6010B	9G06062	0.40	2.0	33	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.73	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	9.7	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	24	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	39	1	07/06/09	07/06/09	

Sample ID: ISG0118-04 (ISWC0028 S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	4.2	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	59	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.63	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	12	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	4.1	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	8.9	1	07/06/09	07/06/09	
Lead	EPA 6010B	9G06062	0.40	2.0	30	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.82	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	9.1	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	0.81	1	07/06/09	07/06/09	J
Vanadium	EPA 6010B	9G06062	0.30	1.0	23	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	38	1	07/06/09	07/10/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0118-05 (ISWC0029 S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.9	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	45	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.64	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	12	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	3.7	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	4.2	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	4.2	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.57	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	5.8	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	0.99	1	07/06/09	07/06/09	J
Vanadium	EPA 6010B	9G06062	0.30	1.0	21	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	34	1	07/06/09	07/10/09	

Sample ID: ISG0118-06 (ISWC0030 S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.4	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	38	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.43	1	07/06/09	07/06/09	J
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	11	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	2.6	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	5.2	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	5.8	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.66	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	6.5	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	0.80	1	07/06/09	07/06/09	J
Vanadium	EPA 6010B	9G06062	0.30	1.0	18	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	35	1	07/06/09	07/10/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0118-07 (ISWC0031 S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.8	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	48	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.55	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	14	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	3.9	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	5.5	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	5.4	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.60	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	7.9	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	0.95	1	07/06/09	07/06/09	J
Vanadium	EPA 6010B	9G06062	0.30	1.0	22	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	41	1	07/06/09	07/10/09	

Sample ID: ISG0118-08 (ISWC0032 S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.6	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	77	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.66	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	13	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	4.0	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	7.1	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	5.2	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.72	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	9.9	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	22	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	37	1	07/06/09	07/10/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118

Sampled: 07/01/09
Received: 07/01/09

SW846 7471A

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0118-01 (ISWC0025 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.016	1	07/09/09	07/09/09	J
Sample ID: ISG0118-02 (ISWC0026 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.014	1	07/09/09	07/09/09	J
Sample ID: ISG0118-03 (ISWC0027 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.019	1	07/09/09	07/09/09	J
Sample ID: ISG0118-04 (ISWC0028 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.02	1	07/09/09	07/09/09	J
Sample ID: ISG0118-05 (ISWC0029 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.011	1	07/09/09	07/09/09	J
Sample ID: ISG0118-06 (ISWC0030 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.0087	1	07/09/09	07/09/09	J
Sample ID: ISG0118-07 (ISWC0031 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.012	1	07/09/09	07/09/09	J
Sample ID: ISG0118-08 (ISWC0032 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.014	1	07/09/09	07/09/09	J

TestAmerica Irvine

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Report Number: ISG0118

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0118-01 (ISWC0025 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	3.0	5.0	500	5.0
Barium	mg/kg	88	100	10000	100
Beryllium	mg/kg	0.49	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	12	5.0	2500	5.0
Cobalt	mg/kg	4.9	80	8000	
Copper	mg/kg	11	25	2500	
Lead	mg/kg	11	5.0	1000	5.0
Molybdenum	mg/kg	0.83	350	3500	
Nickel	mg/kg	8.4	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	28	24	2400	
Zinc	mg/kg	54	250	5000	
ISG0118-02 (ISWC0026 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.0	5.0	500	5.0
Barium	mg/kg	60	100	10000	100
Beryllium	mg/kg	0.55	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	11	5.0	2500	5.0
Cobalt	mg/kg	4.3	80	8000	
Copper	mg/kg	7.8	25	2500	
Lead	mg/kg	10	5.0	1000	5.0
Molybdenum	mg/kg	0.71	350	3500	
Nickel	mg/kg	8.1	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	2.3	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	21	24	2400	
Zinc	mg/kg	38	250	5000	

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POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0118-03 (ISWC0027 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.0	5.0	500	5.0
Barium	mg/kg	62	100	10000	100
Beryllium	mg/kg	0.64	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	13	5.0	2500	5.0
Cobalt	mg/kg	4.2	80	8000	
Copper	mg/kg	8.3	25	2500	
Lead	mg/kg	33	5.0	1000	5.0
Molybdenum	mg/kg	0.73	350	3500	
Nickel	mg/kg	9.7	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	24	24	2400	
Zinc	mg/kg	39	250	5000	
ISG0118-04 (ISWC0028 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.2	5.0	500	5.0
Barium	mg/kg	59	100	10000	100
Beryllium	mg/kg	0.63	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	12	5.0	2500	5.0
Cobalt	mg/kg	4.1	80	8000	
Copper	mg/kg	8.9	25	2500	
Lead	mg/kg	30	5.0	1000	5.0
Molybdenum	mg/kg	0.82	350	3500	
Nickel	mg/kg	9.1	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	0.81	7.0	700	
Vanadium	mg/kg	23	24	2400	
Zinc	mg/kg	38	250	5000	

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ISG0118 <Page 8 of 15>

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Report Number: ISG0118

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0118-05 (ISWC0029 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	3.9	5.0	500	5.0
Barium	mg/kg	45	100	10000	100
Beryllium	mg/kg	0.64	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	12	5.0	2500	5.0
Cobalt	mg/kg	3.7	80	8000	
Copper	mg/kg	4.2	25	2500	
Lead	mg/kg	4.2	5.0	1000	5.0
Molybdenum	mg/kg	0.57	350	3500	
Nickel	mg/kg	5.8	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	0.99	7.0	700	
Vanadium	mg/kg	21	24	2400	
Zinc	mg/kg	34	250	5000	
ISG0118-06 (ISWC0030 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	3.4	5.0	500	5.0
Barium	mg/kg	38	100	10000	100
Beryllium	mg/kg	0.43	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	11	5.0	2500	5.0
Cobalt	mg/kg	2.6	80	8000	
Copper	mg/kg	5.2	25	2500	
Lead	mg/kg	5.8	5.0	1000	5.0
Molybdenum	mg/kg	0.66	350	3500	
Nickel	mg/kg	6.5	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	0.80	7.0	700	
Vanadium	mg/kg	18	24	2400	
Zinc	mg/kg	35	250	5000	

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Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0118-07 (ISWC0031 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	3.8	5.0	500	5.0
Barium	mg/kg	48	100	10000	100
Beryllium	mg/kg	0.55	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	14	5.0	2500	5.0
Cobalt	mg/kg	3.9	80	8000	
Copper	mg/kg	5.5	25	2500	
Lead	mg/kg	5.4	5.0	1000	5.0
Molybdenum	mg/kg	0.60	350	3500	
Nickel	mg/kg	7.9	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	0.95	7.0	700	
Vanadium	mg/kg	22	24	2400	
Zinc	mg/kg	41	250	5000	
ISG0118-08 (ISWC0032 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	3.6	5.0	500	5.0
Barium	mg/kg	77	100	10000	100
Beryllium	mg/kg	0.66	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	13	5.0	2500	5.0
Cobalt	mg/kg	4.0	80	8000	
Copper	mg/kg	7.1	25	2500	
Lead	mg/kg	5.2	5.0	1000	5.0
Molybdenum	mg/kg	0.72	350	3500	
Nickel	mg/kg	9.9	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	22	24	2400	
Zinc	mg/kg	37	250	5000	

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ISG0118 <Page 10 of 15>

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Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD RPD	Data Qualifiers
Batch: 9G06062 Extracted: 07/06/09										
Blank Analyzed: 07/06/2009-07/07/2009 (9G06062-BLK1)										
Antimony	ND	10	0.88	mg/kg						
Arsenic	ND	2.0	0.81	mg/kg						
Barium	ND	1.0	0.80	mg/kg						
Beryllium	ND	0.50	0.20	mg/kg						
Cadmium	ND	0.50	0.20	mg/kg						
Chromium	ND	1.0	0.30	mg/kg						
Cobalt	ND	1.0	0.30	mg/kg						
Copper	0.800	2.0	0.38	mg/kg						J
Lead	ND	2.0	0.40	mg/kg						
Molybdenum	ND	2.0	0.20	mg/kg						
Nickel	ND	2.0	0.20	mg/kg						
Selenium	ND	2.0	1.0	mg/kg						
Silver	ND	1.0	0.80	mg/kg						
Thallium	ND	10	0.80	mg/kg						
Vanadium	ND	1.0	0.30	mg/kg						
Zinc	2.13	5.0	0.75	mg/kg						J

LCS Analyzed: 07/06/2009 (9G06062-BS1)

Antimony	43.6	10	0.88	mg/kg	50.0		87	80-120
Arsenic	44.1	2.0	0.81	mg/kg	50.0		88	80-120
Barium	46.5	1.0	0.80	mg/kg	50.0		93	80-120
Beryllium	46.4	0.50	0.20	mg/kg	50.0		93	80-120
Cadmium	44.2	0.50	0.20	mg/kg	50.0		88	80-120
Chromium	44.8	1.0	0.30	mg/kg	50.0		90	80-120
Cobalt	44.1	1.0	0.30	mg/kg	50.0		88	80-120
Copper	47.5	2.0	0.38	mg/kg	50.0		95	80-120
Lead	45.3	2.0	0.40	mg/kg	50.0		91	80-120
Molybdenum	43.1	2.0	0.20	mg/kg	50.0		86	80-120
Nickel	45.4	2.0	0.20	mg/kg	50.0		91	80-120
Selenium	41.6	2.0	1.0	mg/kg	50.0		83	80-120
Silver	23.1	1.0	0.80	mg/kg	25.0		92	80-120
Thallium	45.5	10	0.80	mg/kg	50.0		91	80-120
Vanadium	46.2	1.0	0.30	mg/kg	50.0		92	80-120
Zinc	44.3	5.0	0.75	mg/kg	50.0		89	80-120

TestAmerica Irvine

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Project Manager

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1891614.05452
Report Number: ISG0118

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9G06062 Extracted: 07/06/09											
Matrix Spike Analyzed: 07/06/2009 (9G06062-MS1)						Source: ISG0117-01					
Antimony	13.4	10	0.88	mg/kg	50.0	ND	27	75-125			M2
Arsenic	47.5	2.0	0.81	mg/kg	50.0	3.80	87	75-125			
Barium	160	1.0	0.80	mg/kg	50.0	118	83	75-125			
Beryllium	47.6	0.50	0.20	mg/kg	50.0	0.722	94	75-125			
Cadmium	44.3	0.50	0.20	mg/kg	50.0	ND	89	75-125			
Chromium	57.4	1.0	0.30	mg/kg	50.0	13.1	89	75-125			
Cobalt	49.8	1.0	0.30	mg/kg	50.0	6.43	87	75-125			
Copper	54.4	2.0	0.38	mg/kg	50.0	7.57	94	75-125			
Lead	52.9	2.0	0.40	mg/kg	50.0	7.15	91	75-125			
Molybdenum	41.8	2.0	0.20	mg/kg	50.0	0.820	82	75-125			
Nickel	53.1	2.0	0.20	mg/kg	50.0	8.29	90	75-125			
Selenium	41.0	2.0	1.0	mg/kg	50.0	ND	82	75-125			
Silver	23.0	1.0	0.80	mg/kg	25.0	ND	92	75-125			
Thallium	43.7	10	0.80	mg/kg	50.0	ND	87	75-125			
Vanadium	69.3	1.0	0.30	mg/kg	50.0	23.2	92	75-125			
Zinc	87.5	5.0	0.75	mg/kg	50.0	42.8	89	75-125			
Matrix Spike Dup Analyzed: 07/06/2009 (9G06062-MSD1)						Source: ISG0117-01					
Antimony	15.2	10	0.88	mg/kg	50.0	ND	30	75-125	12	20	M2
Arsenic	48.2	2.0	0.81	mg/kg	50.0	3.80	89	75-125	1	20	
Barium	168	1.0	0.80	mg/kg	50.0	118	99	75-125	5	20	
Beryllium	48.1	0.50	0.20	mg/kg	50.0	0.722	95	75-125	1	20	
Cadmium	45.1	0.50	0.20	mg/kg	50.0	ND	90	75-125	2	20	
Chromium	58.8	1.0	0.30	mg/kg	50.0	13.1	91	75-125	2	20	
Cobalt	51.3	1.0	0.30	mg/kg	50.0	6.43	90	75-125	3	20	
Copper	55.8	2.0	0.38	mg/kg	50.0	7.57	96	75-125	3	20	
Lead	53.1	2.0	0.40	mg/kg	50.0	7.15	92	75-125	0	20	
Molybdenum	42.6	2.0	0.20	mg/kg	50.0	0.820	84	75-125	2	20	
Nickel	53.5	2.0	0.20	mg/kg	50.0	8.29	90	75-125	1	20	
Selenium	42.0	2.0	1.0	mg/kg	50.0	ND	84	75-125	2	20	
Silver	23.3	1.0	0.80	mg/kg	25.0	ND	93	75-125	1	20	
Thallium	44.2	10	0.80	mg/kg	50.0	ND	88	75-125	1	20	
Vanadium	71.5	1.0	0.30	mg/kg	50.0	23.2	97	75-125	3	20	
Zinc	90.1	5.0	0.75	mg/kg	50.0	42.8	95	75-125	3	20	

TestAmerica Irvine

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Report Number: ISG0118

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

SW846 7471A

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9189354 Extracted: 07/09/09											
Matrix Spike Dup Analyzed: 07/09/2009 (D9G070271001D)						Source: ISG0118-01					
Mercury	0.386	0.033	0.0055	mg/kg	0.417	0.016	89	87-111	4	20	
Matrix Spike Analyzed: 07/09/2009 (D9G070271001S)						Source: ISG0118-01					
Mercury	0.37	0.033	0.0055	mg/kg	0.417	0.016	85	87-111	4	20	N
Blank Analyzed: 07/09/2009 (D9G080000354B)						Source:					
Mercury	ND	0.033	0.0055	mg/kg				-			
LCS Analyzed: 07/09/2009 (D9G080000354C)						Source:					
Mercury	0.368	0.033	0.0055	mg/kg	0.417		88	87-111			

TestAmerica Irvine

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Sampled: 07/01/09
Received: 07/01/09

DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- N** Spike sample recovery is outside control limits.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

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Project Manager

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Project ID: ISRA HV Waste Characterization
1891614.05452
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Sampled: 07/01/09
Received: 07/01/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: SW846 7471A

Samples: ISG0118-01, ISG0118-02, ISG0118-03, ISG0118-04, ISG0118-05, ISG0118-06, ISG0118-07,
ISG0118-08

TestAmerica Irvine

Joseph Doak
Project Manager

ISRA-HVS-2A
IS 60118

Chain of Custody Record

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Project Name: **ISRA HV Waste Characterization**
Site: Happy Valley
P O # 7KSSISRA

Project Manager: Tom Venable
Tel/Fax: 818-466-8779 / 818-466-4873
Analysis Turnaround Time
Calendar (C) or Work Days (W) C
TAT if different from Below
 2 weeks
 1 week
 2 days
 1 day

Site Contact: Shelby Valenzuela
Lab Contact: Joe Doak
Date: 7/1/09
Carrier: courier
COC No. of COCs
Job No. 1591641.05452
SDG No.

Sample Specific Notes:
ISRA - HVS - 2A

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	CAM 17 Metals
ISW0025 S001 (0-0.5')	7/1/09	1210	S	soil	1	X	X
ISW0026 S001 (0.2-0.7')	7/1/09	1220	S	soil	1	X	X
ISW0027 S001 (0.2-0.7')	7/1/09	1230	S	soil	1	X	X
ISW0028 S001 (0.4-0.9')	7/1/09	1235	S	soil	1	X	X
ISW0029 S001 (1.3-1.8')	7/1/09	1240	S	soil	1	X	X
ISW0030 S001 (0.6-1.1')	7/1/09	1300	S	soil	1	X	X
ISW0031 S001 (0.5-1.0')	7/1/09	1250	S	soil	1	X	X
ISW0032 S001 (0.7-1.2')	7/1/09	1240	S	soil	1	X	X
				SP			
				7/1/09			

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other
Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For 6 Months

Special Instructions/QC Requirements & Comments: Run STLC (WET) / TCLP if TILC results ≥ 10x STLC / 20x TCLP thresholds

Relinquished by: [Signature] Date/Time: 1505 7/1/09
Relinquished by: [Signature] Date/Time: 7-09/18-301
Relinquished by: [Signature] Date/Time: 7/1/09 15:05

Company: MWH Received by: [Signature] Company: Test America
Company: Test America Received by: [Signature] Company: Test America
Company: Test America Received by: [Signature] Company: Test America

2-7C

0.1017
1/10/09

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

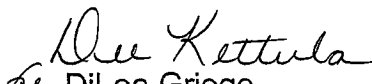
MWH-Pasadena / Boeing

Lot D9G070271

Project ISG0118

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.


Dee Kettula
Project Manager

July 14, 2009

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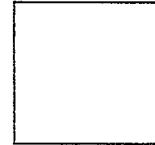
Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

(The Report Cover page is considered an integral part of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)



- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
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- **Analytical Results**
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- **QC Results**
- **Sample Receiving Checklist**
- **Chain of Custody**

Case Narrative

Enclosed is the report for eight samples received at the TestAmerica Laboratory in Denver on July 7, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D9G070271

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 1.2°C.

Total Metals – Method 7471A

The Mercury MS/MSD performed on sample ISG0118-01 in QC batch 9189354 exhibited a percent recovery outside the QC control limits. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9G070271

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
ISG0118-01 07/01/09 12:10 001				
Mercury	0.016 J	0.033	mg/kg	SW846 7471A
ISG0118-02 07/01/09 12:20 002				
Mercury	0.014 J	0.033	mg/kg	SW846 7471A
ISG0118-03 07/01/09 12:30 003				
Mercury	0.019 J	0.033	mg/kg	SW846 7471A
ISG0118-04 07/01/09 13:15 004				
Mercury	0.020 J	0.033	mg/kg	SW846 7471A
ISG0118-05 07/01/09 12:00 005				
Mercury	0.011 J	0.033	mg/kg	SW846 7471A
ISG0118-06 07/01/09 13:00 006				
Mercury	0.0087 J	0.033	mg/kg	SW846 7471A
ISG0118-07 07/01/09 12:50 007				
Mercury	0.012 J	0.033	mg/kg	SW846 7471A
ISG0118-08 07/01/09 12:40 008				
Mercury	0.014 J	0.033	mg/kg	SW846 7471A

METHODS SUMMARY

D9G070271

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9G070271

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 7471A	Christopher Grisdale	9582

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9G070271

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LF5WP	001	ISG0118-01	07/01/09	12:10
LF5W3	002	ISG0118-02	07/01/09	12:20
LF5W4	003	ISG0118-03	07/01/09	12:30
LF5W5	004	ISG0118-04	07/01/09	13:15
LF5W6	005	ISG0118-05	07/01/09	12:00
LF5W7	006	ISG0118-06	07/01/09	13:00
LF5W9	007	ISG0118-07	07/01/09	12:50
LF5XA	008	ISG0118-08	07/01/09	12:40

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ISG0118-01

TOTAL Metals

Lot-Sample #...: D9G070271-001

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:10 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.016 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5WP1AA
		Dilution Factor: 1		Analysis Time...: 12:07	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-02

TOTAL Metals

Lot-Sample #...: D9G070271-002

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:20 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.014 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W31AA
		Dilution Factor: 1		Analysis Time...: 12:18	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-03

TOTAL Metals

Lot-Sample #...: D9G070271-003

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:30 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.019 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W41AA
		Dilution Factor: 1		Analysis Time...: 12:20	MDL.....: 0.0055	

NOTE(S):

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-04

TOTAL Metals

Lot-Sample #...: D9G070271-004

Matrix.....: SOLID

Date Sampled...: 07/01/09 13:15 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.020 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W51AA
		Dilution Factor: 1		Analysis Time...: 12:23	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-05

TOTAL Metals

Lot-Sample #...: D9G070271-005

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:00 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.011 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W61AA
		Dilution Factor: 1		Analysis Time...: 12:30	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-06

TOTAL Metals

Lot-Sample #...: D9G070271-006

Matrix.....: SOLID

Date Sampled...: 07/01/09 13:00 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.0087 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W71AA
		Dilution Factor: 1		Analysis Time...: 12:32	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-07

TOTAL Metals

Lot-Sample #...: D9G070271-007

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:50 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.012 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W91AA
		Dilution Factor: 1		Analysis Time...: 12:34	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-08

TOTAL Metals

Lot-Sample #...: D9G070271-008

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:40 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.014 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XA1AA
		Dilution Factor: 1		Analysis Time...: 12:37	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

QC DATA ASSOCIATION SUMMARY

D9G070271

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 7471A		9189354	9189205
002	SOLID	SW846 7471A		9189354	9189205
003	SOLID	SW846 7471A		9189354	9189205
004	SOLID	SW846 7471A		9189354	9189205
005	SOLID	SW846 7471A		9189354	9189205
006	SOLID	SW846 7471A		9189354	9189205
007	SOLID	SW846 7471A		9189354	9189205
008	SOLID	SW846 7471A		9189354	9189205

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D9G070271

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MB Lot-Sample #: D9G080000-354		Prep Batch #...: 9189354				
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF64D1AA
		Dilution Factor: 1				
		Analysis Time..: 12:02				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070271

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#:	D9G080000-354	Prep Batch #...:	9189354		
Mercury	88	(87 - 111)	SW846 7471A	07/09/09	LF64D1AC
		Dilution Factor: 1	Analysis Time...:	12:04	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070271

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
------------------	---------------------	------------------------	--------------	----------------------	---------------	-----------------------------------	---------------------

LCS Lot-Sample#: D9G080000-354 Prep Batch #...: 9189354

Mercury	0.417	0.368	mg/kg	88	SW846 7471A	07/09/09	LF64D1AC
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Dilution Factor: 1 Analysis Time..: 12:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070271

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:10 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MS Lot-Sample #: D9G070271-001 Prep Batch #...: 9189354							
Mercury	85 N	(87 - 111)			SW846 7471A	07/09/09	LF5WP1AC
	89	(87 - 111)	4.1	(0-20)	SW846 7471A	07/09/09	LF5WP1AD
			Dilution Factor: 1				
			Analysis Time...: 12:09				

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #....: D9G070271

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:10 Date Received...: 07/07/09

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
-----------	---------------	-----------	---------------	-------	---------------	-----	--------	----------------------------	--------------

MS Lot-Sample #: D9G070271-001 Prep Batch #....: 9189354

Mercury

0.016	0.417	0.370	N mg/kg	85		SW846 7471A	07/09/09	LF5WP1AC
0.016	0.417	0.386	mg/kg	89	4.1	SW846 7471A	07/09/09	LF5WP1AD

Dilution Factor: 1
Analysis Time...: 12:09

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

TestAmerica Denver
Sample Receiving Checklist

Lot #: D9G070271 Date/Time Received: 7/7/09 0830
 Company Name & Sampling Site: TA IRVINE - BOEING

PM to Complete This Section: Yes No Quarantined: Yes No

Residual chlorine check required:

Quote #: 72743

Special Instructions:

*Set A & R to
7/15*

Time Zone: 6
 • EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 1.2° _____

N/A Yes No

Initials

LC

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading \leq to background levels? Yes: No:
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative HCl 4±2°C Sodium Thiosulfate Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver
Sample Receiving Checklist

Lot # D9G02021

Login Checks:

Initials

LM

N/A Yes No

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? 1
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

LC

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0118

SENDING LABORATORY:

TestAmerica Irvine
 17461 Derian Avenue. Suite 100
 Irvine, CA 92614
 Phone: (949) 261-1022
 Fax: (949) 260-3297
 Project Manager: Joseph Doak
 Client: The Boeing Company-SSFL

RECEIVING LABORATORY:

TestAmerica Denver
 4955 Yarrow Street
 Arvada, CO 80002
 Phone : (303) 736-0100
 Fax: (303) 431-7171
 Project Location: CA - CALIFORNIA
 Receipt Temperature: 1.2 °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ISG0118-01	Soil					Sampled: 07/01/09 12:10
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 12:10	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0118-02	Soil					Sampled: 07/01/09 12:20
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 12:20	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0118-03	Soil					Sampled: 07/01/09 12:30
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 12:30	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0118-04	Soil					Sampled: 07/01/09 13:15
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 13:15	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0118-05	Soil					Sampled: 07/01/09 12:00
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 12:00	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0118-06	Soil					Sampled: 07/01/09 13:00
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 13:00	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						

Olga Ornelas
 Released By

7/6/09 17:00
 Date/Time

FedEx
 Received By

7/6/09 17:00
 Date/Time

Lisa Muller
 Received By

7/7/09 0830
 Date/Time

Released By
 TestAmerica Denver

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0118

Analysis	Units	Due	Expires	Interlab	Price Surch	Comments
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Sample ID: ISG0118-07

Soil

Sampled: 07/01/09 12:50

Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 12:50	\$35.00	0%	J Flags/Boeing/sub to denver
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Containers Supplied:

4 oz Jar (B)

Sample ID: ISG0118-08

Soil

Sampled: 07/01/09 12:40

Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 12:40	\$35.00	0%	J Flags/Boeing/sub to denver
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Containers Supplied:

4 oz Jar (B)

LABORATORY REPORT

Prepared For: The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project: ISRA HV Waste Characterization
1891614.05452

Sampled: 07/01/09
Received: 07/01/09
Issued: 07/28/09 12:41

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

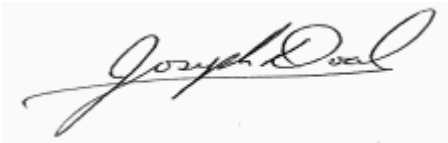
SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: This is an amended report to include only samples to be reported per the client's request. Samples to be reported are: ISG0118-01, -02, -03, -05, -06, -07, -08.

LABORATORY ID	CLIENT ID	MATRIX
ISG0118-01	HZBS0158S001	Soil
ISG0118-02	HZBS0159S001	Soil
ISG0118-03	HZBS0160S001	Soil
ISG0118-05	HZBS0161S001	Soil
ISG0118-06	HZBS0162S001	Soil
ISG0118-07	HZBS0163S001	Soil
ISG0118-08	HZBS0164S001	Soil

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118
SDG: ISG0118

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0118-01 (HZBS0158S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.0	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	88	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.49	1	07/06/09	07/06/09	J
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	12	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	4.9	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	11	1	07/06/09	07/06/09	
Lead	EPA 6010B	9G06062	0.40	2.0	11	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.83	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	8.4	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	28	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	54	1	07/06/09	07/06/09	

Sample ID: ISG0118-02 (HZBS0159S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	4.0	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	60	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.55	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	11	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	4.3	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	7.8	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	10	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.71	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	8.1	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/07/09	
Silver	EPA 6010B	9G06062	0.80	1.0	2.3	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	21	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	38	1	07/06/09	07/06/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118
SDG: ISG0118

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0118-03 (HZBS0160S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	4.0	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	62	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.64	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	13	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	4.2	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	8.3	1	07/06/09	07/06/09	
Lead	EPA 6010B	9G06062	0.40	2.0	33	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.73	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	9.7	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	24	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	39	1	07/06/09	07/06/09	

Sample ID: ISG0118-05 (HZBS0161S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.9	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	45	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.64	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	12	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	3.7	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	4.2	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	4.2	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.57	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	5.8	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	0.99	1	07/06/09	07/06/09	J
Vanadium	EPA 6010B	9G06062	0.30	1.0	21	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	34	1	07/06/09	07/10/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118
SDG: ISG0118

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0118-06 (HZBS0162S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.4	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	38	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.43	1	07/06/09	07/06/09	J
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	11	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	2.6	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	5.2	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	5.8	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.66	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	6.5	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	0.80	1	07/06/09	07/06/09	J
Vanadium	EPA 6010B	9G06062	0.30	1.0	18	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	35	1	07/06/09	07/10/09	

Sample ID: ISG0118-07 (HZBS0163S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.8	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	48	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.55	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	14	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	3.9	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	5.5	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	5.4	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.60	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	7.9	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	0.95	1	07/06/09	07/06/09	J
Vanadium	EPA 6010B	9G06062	0.30	1.0	22	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	41	1	07/06/09	07/10/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304-1148
 Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
 1891614.05452
 Report Number: ISG0118
 SDG: ISG0118

Sampled: 07/01/09
 Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0118-08 (HZBS0164S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06062	0.88	10	ND	1	07/06/09	07/06/09	
Arsenic	EPA 6010B	9G06062	0.81	2.0	3.6	1	07/06/09	07/06/09	
Barium	EPA 6010B	9G06062	0.80	1.0	77	1	07/06/09	07/06/09	
Beryllium	EPA 6010B	9G06062	0.20	0.50	0.66	1	07/06/09	07/06/09	
Cadmium	EPA 6010B	9G06062	0.20	0.50	ND	1	07/06/09	07/06/09	
Chromium	EPA 6010B	9G06062	0.30	1.0	13	1	07/06/09	07/06/09	
Cobalt	EPA 6010B	9G06062	0.30	1.0	4.0	1	07/06/09	07/06/09	
Copper	EPA 6010B	9G06062	0.38	2.0	7.1	1	07/06/09	07/06/09	B
Lead	EPA 6010B	9G06062	0.40	2.0	5.2	1	07/06/09	07/06/09	
Molybdenum	EPA 6010B	9G06062	0.20	2.0	0.72	1	07/06/09	07/06/09	J
Nickel	EPA 6010B	9G06062	0.20	2.0	9.9	1	07/06/09	07/06/09	
Selenium	EPA 6010B	9G06062	1.0	2.0	ND	1	07/06/09	07/06/09	
Silver	EPA 6010B	9G06062	0.80	1.0	ND	1	07/06/09	07/06/09	
Thallium	EPA 6010B	9G06062	0.80	10	ND	1	07/06/09	07/06/09	
Vanadium	EPA 6010B	9G06062	0.30	1.0	22	1	07/06/09	07/06/09	
Zinc	EPA 6010B	9G06062	0.75	5.0	37	1	07/06/09	07/10/09	

TestAmerica Irvine

Joseph Doak
 Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118
SDG: ISG0118

Sampled: 07/01/09
Received: 07/01/09

SW846 7471A

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0118-01 (HZBS0158S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.016	1	07/09/09	07/09/09	J
Sample ID: ISG0118-02 (HZBS0159S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.014	1	07/09/09	07/09/09	J
Sample ID: ISG0118-03 (HZBS0160S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.019	1	07/09/09	07/09/09	J
Sample ID: ISG0118-05 (HZBS0161S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.011	1	07/09/09	07/09/09	J
Sample ID: ISG0118-06 (HZBS0162S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.0087	1	07/09/09	07/09/09	J
Sample ID: ISG0118-07 (HZBS0163S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.012	1	07/09/09	07/09/09	J
Sample ID: ISG0118-08 (HZBS0164S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.014	1	07/09/09	07/09/09	J

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118
SDG: ISG0118

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD RPD	Data Qualifiers
Batch: 9G06062 Extracted: 07/06/09										
Blank Analyzed: 07/06/2009-07/07/2009 (9G06062-BLK1)										
Antimony	ND	10	0.88	mg/kg						
Arsenic	ND	2.0	0.81	mg/kg						
Barium	ND	1.0	0.80	mg/kg						
Beryllium	ND	0.50	0.20	mg/kg						
Cadmium	ND	0.50	0.20	mg/kg						
Chromium	ND	1.0	0.30	mg/kg						
Cobalt	ND	1.0	0.30	mg/kg						
Copper	0.800	2.0	0.38	mg/kg						J
Lead	ND	2.0	0.40	mg/kg						
Molybdenum	ND	2.0	0.20	mg/kg						
Nickel	ND	2.0	0.20	mg/kg						
Selenium	ND	2.0	1.0	mg/kg						
Silver	ND	1.0	0.80	mg/kg						
Thallium	ND	10	0.80	mg/kg						
Vanadium	ND	1.0	0.30	mg/kg						
Zinc	2.13	5.0	0.75	mg/kg						J

LCS Analyzed: 07/06/2009 (9G06062-BS1)

Antimony	43.6	10	0.88	mg/kg	50.0		87	80-120
Arsenic	44.1	2.0	0.81	mg/kg	50.0		88	80-120
Barium	46.5	1.0	0.80	mg/kg	50.0		93	80-120
Beryllium	46.4	0.50	0.20	mg/kg	50.0		93	80-120
Cadmium	44.2	0.50	0.20	mg/kg	50.0		88	80-120
Chromium	44.8	1.0	0.30	mg/kg	50.0		90	80-120
Cobalt	44.1	1.0	0.30	mg/kg	50.0		88	80-120
Copper	47.5	2.0	0.38	mg/kg	50.0		95	80-120
Lead	45.3	2.0	0.40	mg/kg	50.0		91	80-120
Molybdenum	43.1	2.0	0.20	mg/kg	50.0		86	80-120
Nickel	45.4	2.0	0.20	mg/kg	50.0		91	80-120
Selenium	41.6	2.0	1.0	mg/kg	50.0		83	80-120
Silver	23.1	1.0	0.80	mg/kg	25.0		92	80-120
Thallium	45.5	10	0.80	mg/kg	50.0		91	80-120
Vanadium	46.2	1.0	0.30	mg/kg	50.0		92	80-120
Zinc	44.3	5.0	0.75	mg/kg	50.0		89	80-120

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118
SDG: ISG0118

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9G06062 Extracted: 07/06/09											
Matrix Spike Analyzed: 07/06/2009 (9G06062-MS1)						Source: ISG0117-01					
Antimony	13.4	10	0.88	mg/kg	50.0	ND	27	75-125			M2
Arsenic	47.5	2.0	0.81	mg/kg	50.0	3.80	87	75-125			
Barium	160	1.0	0.80	mg/kg	50.0	118	83	75-125			
Beryllium	47.6	0.50	0.20	mg/kg	50.0	0.722	94	75-125			
Cadmium	44.3	0.50	0.20	mg/kg	50.0	ND	89	75-125			
Chromium	57.4	1.0	0.30	mg/kg	50.0	13.1	89	75-125			
Cobalt	49.8	1.0	0.30	mg/kg	50.0	6.43	87	75-125			
Copper	54.4	2.0	0.38	mg/kg	50.0	7.57	94	75-125			
Lead	52.9	2.0	0.40	mg/kg	50.0	7.15	91	75-125			
Molybdenum	41.8	2.0	0.20	mg/kg	50.0	0.820	82	75-125			
Nickel	53.1	2.0	0.20	mg/kg	50.0	8.29	90	75-125			
Selenium	41.0	2.0	1.0	mg/kg	50.0	ND	82	75-125			
Silver	23.0	1.0	0.80	mg/kg	25.0	ND	92	75-125			
Thallium	43.7	10	0.80	mg/kg	50.0	ND	87	75-125			
Vanadium	69.3	1.0	0.30	mg/kg	50.0	23.2	92	75-125			
Zinc	87.5	5.0	0.75	mg/kg	50.0	42.8	89	75-125			
Matrix Spike Dup Analyzed: 07/06/2009 (9G06062-MSD1)						Source: ISG0117-01					
Antimony	15.2	10	0.88	mg/kg	50.0	ND	30	75-125	12	20	M2
Arsenic	48.2	2.0	0.81	mg/kg	50.0	3.80	89	75-125	1	20	
Barium	168	1.0	0.80	mg/kg	50.0	118	99	75-125	5	20	
Beryllium	48.1	0.50	0.20	mg/kg	50.0	0.722	95	75-125	1	20	
Cadmium	45.1	0.50	0.20	mg/kg	50.0	ND	90	75-125	2	20	
Chromium	58.8	1.0	0.30	mg/kg	50.0	13.1	91	75-125	2	20	
Cobalt	51.3	1.0	0.30	mg/kg	50.0	6.43	90	75-125	3	20	
Copper	55.8	2.0	0.38	mg/kg	50.0	7.57	96	75-125	3	20	
Lead	53.1	2.0	0.40	mg/kg	50.0	7.15	92	75-125	0	20	
Molybdenum	42.6	2.0	0.20	mg/kg	50.0	0.820	84	75-125	2	20	
Nickel	53.5	2.0	0.20	mg/kg	50.0	8.29	90	75-125	1	20	
Selenium	42.0	2.0	1.0	mg/kg	50.0	ND	84	75-125	2	20	
Silver	23.3	1.0	0.80	mg/kg	25.0	ND	93	75-125	1	20	
Thallium	44.2	10	0.80	mg/kg	50.0	ND	88	75-125	1	20	
Vanadium	71.5	1.0	0.30	mg/kg	50.0	23.2	97	75-125	3	20	
Zinc	90.1	5.0	0.75	mg/kg	50.0	42.8	95	75-125	3	20	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304-1148
 Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
 1891614.05452
 Report Number: ISG0118
 SDG: ISG0118

Sampled: 07/01/09
 Received: 07/01/09

METHOD BLANK/QC DATA

SW846 7471A

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9189354 Extracted: 07/09/09											
Matrix Spike Dup Analyzed: 07/09/2009 (D9G070271001D)						Source: ISG0118-01					
Mercury	0.386	0.033	0.0055	mg/kg	0.417	0.016	89	87-111	4	20	
Matrix Spike Analyzed: 07/09/2009 (D9G070271001S)						Source: ISG0118-01					
Mercury	0.37	0.033	0.0055	mg/kg	0.417	0.016	85	87-111	4	20	N
Blank Analyzed: 07/09/2009 (D9G080000354B)						Source:					
Mercury	ND	0.033	0.0055	mg/kg				-			
LCS Analyzed: 07/09/2009 (D9G080000354C)						Source:					
Mercury	0.368	0.033	0.0055	mg/kg	0.417		88	87-111			

TestAmerica Irvine

Joseph Doak
 Project Manager

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Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118
SDG: ISG0118

Sampled: 07/01/09
Received: 07/01/09

DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- N** Spike sample recovery is outside control limits.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

ISG0118 <Page 10 of 11>

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0118
SDG: ISG0118

Sampled: 07/01/09
Received: 07/01/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: SW846 7471A

Samples: ISG0118-01, ISG0118-02, ISG0118-03, ISG0118-05, ISG0118-06, ISG0118-07, ISG0118-08

TestAmerica Irvine

Joseph Doak
Project Manager

IS 60118

Chain of Custody Record

IRVINE
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax 949.260.3299

ISRA-HVS-2A

Client Contact
The Boeing Company SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304
Phone _____
FAX _____
Project Name: **ISRA HV Waste Characterization**
Site: Happy Valley
P O # 7KSSISRA

Project Manager: Tom Venable
Tel/Fax: 818-466-8779 / 818-466-4873
Analysis Turnaround Time: C
Calendar (C) or Work Days (W) _____
TAT if different from Below:
 2 weeks
 1 week
 2 days
 1 day

Site Contact: Shelby Valenzuela
Lab Contact: Joe Doak
Date: 7/1/09
Carrier: Courier
COC No. _____ of _____ COCs
Job No. 159164.05452
SDG No. _____

Sample Identification

Sample ID	Depth	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	CAM 17 Metals	Sample Specific Notes
ISW0025	(0-0.5')	7/1/09	1210	S	soil	1	X	X	ISRA - HVS - 2A
ISW0026	(0.2-0.7')	7/1/09	1220	S	soil	1	X	X	
ISW0027	(0.2-0.7')	7/1/09	1230	S	soil	1	X	X	
ISW0028	(0.4-0.9')	7/1/09	1235	S	soil	1	X	X	
ISW0029	(1.3-1.8')	7/1/09	1240	S	soil	1	X	X	
ISW0030	(0.6-1.1')	7/1/09	1300	S	soil	1	X	X	
ISW0031	(0.5-1.0')	7/1/09	1250	S	soil	1	X	X	
ISW0032	(0.7-1.2')	7/1/09	1240	S	soil	1	X	X	
				SP	SP				0.1017 1/10/09

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other _____
Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Unknown

Special Instructions/QC Requirements & Comments: (Run STLC (WET) / TCLP if TILC results ≥ 10x STLC / 20x TCLP thresholds)
Return To Client Disposal By Lab Archive For 6 Months

Relinquished by: [Signature] Date/Time: 1505 7/1/09
Relinquished by: [Signature] Date/Time: 7/1/09 15:05
Relinquished by: [Signature] Date/Time: 7/1/09 18:30
Relinquished by: [Signature] Date/Time: 7/1/09 18:30

Company: MWH Received by: [Signature] Date/Time: 7/1/09 15:05
Company: Test America Received by: [Signature] Date/Time: 7/1/09 18:30
Company: Test America Received by: [Signature] Date/Time: 7/1/09 18:30

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

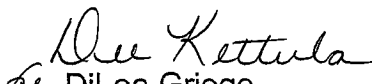
MWH-Pasadena / Boeing

Lot D9G070271

Project ISG0118

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.


Dee Kettula
Project Manager

July 14, 2009

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Report Contents

Total Number of Pages

Standard Deliverables

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- **Methods Summary**
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- **Lot Sample Summary**
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- **QC Data Association Summary**
- **QC Results**
- **Sample Receiving Checklist**
- **Chain of Custody**

Case Narrative

Enclosed is the report for eight samples received at the TestAmerica Laboratory in Denver on July 7, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

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Quality Control Summary for Lot D9G070271

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 1.2°C.

Total Metals – Method 7471A

The Mercury MS/MSD performed on sample ISG0118-01 in QC batch 9189354 exhibited a percent recovery outside the QC control limits. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9G070271

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
ISG0118-01 07/01/09 12:10 001				
Mercury	0.016 J	0.033	mg/kg	SW846 7471A
ISG0118-02 07/01/09 12:20 002				
Mercury	0.014 J	0.033	mg/kg	SW846 7471A
ISG0118-03 07/01/09 12:30 003				
Mercury	0.019 J	0.033	mg/kg	SW846 7471A
ISG0118-04 07/01/09 13:15 004				
Mercury	0.020 J	0.033	mg/kg	SW846 7471A
ISG0118-05 07/01/09 12:00 005				
Mercury	0.011 J	0.033	mg/kg	SW846 7471A
ISG0118-06 07/01/09 13:00 006				
Mercury	0.0087 J	0.033	mg/kg	SW846 7471A
ISG0118-07 07/01/09 12:50 007				
Mercury	0.012 J	0.033	mg/kg	SW846 7471A
ISG0118-08 07/01/09 12:40 008				
Mercury	0.014 J	0.033	mg/kg	SW846 7471A

METHODS SUMMARY

D9G070271

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9G070271

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 7471A	Christopher Grisdale	9582

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9G070271

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LF5WP	001	ISG0118-01	07/01/09	12:10
LF5W3	002	ISG0118-02	07/01/09	12:20
LF5W4	003	ISG0118-03	07/01/09	12:30
LF5W5	004	ISG0118-04	07/01/09	13:15
LF5W6	005	ISG0118-05	07/01/09	12:00
LF5W7	006	ISG0118-06	07/01/09	13:00
LF5W9	007	ISG0118-07	07/01/09	12:50
LF5XA	008	ISG0118-08	07/01/09	12:40

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ISG0118-01

TOTAL Metals

Lot-Sample #...: D9G070271-001

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:10 Date Received...: 07/07/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9189354						
Mercury	0.016 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5WP1AA
		Dilution Factor: 1		Analysis Time...: 12:07	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-02

TOTAL Metals

Lot-Sample #...: D9G070271-002

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:20 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.014 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W31AA
		Dilution Factor: 1		Analysis Time...: 12:18	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-03

TOTAL Metals

Lot-Sample #...: D9G070271-003

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:30 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.019 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W41AA
		Dilution Factor: 1		Analysis Time...: 12:20	MDL.....: 0.0055	

NOTE(S):

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-04

TOTAL Metals

Lot-Sample #...: D9G070271-004

Matrix.....: SOLID

Date Sampled...: 07/01/09 13:15 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.020 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W51AA
		Dilution Factor: 1		Analysis Time...: 12:23	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-05

TOTAL Metals

Lot-Sample #...: D9G070271-005

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:00 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.011 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W61AA
		Dilution Factor: 1		Analysis Time...: 12:30	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-06

TOTAL Metals

Lot-Sample #...: D9G070271-006

Matrix.....: SOLID

Date Sampled...: 07/01/09 13:00 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.0087 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W71AA
		Dilution Factor: 1		Analysis Time...: 12:32	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-07

TOTAL Metals

Lot-Sample #...: D9G070271-007

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:50 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.012 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W91AA
		Dilution Factor: 1		Analysis Time...: 12:34	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0118-08

TOTAL Metals

Lot-Sample #...: D9G070271-008

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:40 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.014 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XA1AA
		Dilution Factor: 1		Analysis Time...: 12:37	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

QC DATA ASSOCIATION SUMMARY

D9G070271

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 7471A		9189354	9189205
002	SOLID	SW846 7471A		9189354	9189205
003	SOLID	SW846 7471A		9189354	9189205
004	SOLID	SW846 7471A		9189354	9189205
005	SOLID	SW846 7471A		9189354	9189205
006	SOLID	SW846 7471A		9189354	9189205
007	SOLID	SW846 7471A		9189354	9189205
008	SOLID	SW846 7471A		9189354	9189205

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D9G070271

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MB Lot-Sample #:	D9G080000-354	Prep Batch #...	9189354			
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF64D1AA
		Dilution Factor: 1				
		Analysis Time..: 12:02				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070271

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#:	D9G080000-354	Prep Batch #...:	9189354		
Mercury	88	(87 - 111)	SW846 7471A	07/09/09	LF64D1AC
		Dilution Factor: 1	Analysis Time...:	12:04	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070271

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
------------------	-------------------------------	----------------------------------	--------------	--------------------------------	---------------	---	-------------------------------

LCS Lot-Sample#: D9G080000-354 Prep Batch #...: 9189354

Mercury	0.417	0.368	mg/kg	88	SW846 7471A	07/09/09	LF64D1AC
---------	-------	-------	-------	----	-------------	----------	----------

Dilution Factor: 1 Analysis Time...: 12:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070271

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:10 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MS Lot-Sample #: D9G070271-001 Prep Batch #...: 9189354							
Mercury	85 N	(87 - 111)			SW846 7471A	07/09/09	LF5WP1AC
	89	(87 - 111)	4.1	(0-20)	SW846 7471A	07/09/09	LF5WP1AD
			Dilution Factor: 1				
			Analysis Time...: 12:09				

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #....: D9G070271

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:10 Date Received...: 07/07/09

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
-----------	---------------	-----------	---------------	-------	---------------	-----	--------	----------------------------	--------------

MS Lot-Sample #: D9G070271-001 Prep Batch #....: 9189354

Mercury

0.016	0.417	0.370	N mg/kg	85		SW846 7471A	07/09/09	LF5WP1AC
0.016	0.417	0.386	mg/kg	89	4.1	SW846 7471A	07/09/09	LF5WP1AD

Dilution Factor: 1
Analysis Time...: 12:09

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

TestAmerica Denver
Sample Receiving Checklist

Lot #: D9G070271 Date/Time Received: 7/7/09 0830
 Company Name & Sampling Site: TA IRVINE-BOEING

PM to Complete This Section: Yes No Quarantined: Yes No

Residual chlorine check required:

Quote #: 72743

Special Instructions:

*Set A & R to
7/15*

Time Zone: 6
 • EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 1.2° _____

N/A Yes No

Initials

LC

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: No: _____
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative HCl 4±2°C Sodium Thiosulfate Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver
Sample Receiving Checklist

Lot # D9G02021

Login Checks:

Initials

LM

N/A Yes No

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? 1
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

LC

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0118

SENDING LABORATORY:

TestAmerica Irvine
 17461 Derian Avenue. Suite 100
 Irvine, CA 92614
 Phone: (949) 261-1022
 Fax: (949) 260-3297
 Project Manager: Joseph Doak
 Client: The Boeing Company-SSFL

RECEIVING LABORATORY:

TestAmerica Denver
 4955 Yarrow Street
 Arvada, CO 80002
 Phone : (303) 736-0100
 Fax: (303) 431-7171
 Project Location: CA - CALIFORNIA
 Receipt Temperature: 1.2 °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ISG0118-01	Soil		Sampled: 07/01/09 12:10			
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 12:10	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0118-02	Soil		Sampled: 07/01/09 12:20			
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 12:20	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0118-03	Soil		Sampled: 07/01/09 12:30			
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 12:30	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0118-04	Soil		Sampled: 07/01/09 13:15			
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 13:15	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0118-05	Soil		Sampled: 07/01/09 12:00			
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 12:00	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0118-06	Soil		Sampled: 07/01/09 13:00			
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 13:00	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						

Olga Ornelas
 Released By

7/6/09 17:00
 Date/Time

FedEx
 Received By

7/6/09 17:00
 Date/Time

Released By
 TestAmerica Denver

 Date/Time

Lisa Muller
 Received By

7/7/09 0830
 Date/Time

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0118

Analysis	Units	Due	Expires	Interlab	Price Surch	Comments
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Sample ID: ISG0118-07

Soil

Sampled: 07/01/09 12:50

Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 12:50	\$35.00	0%	J Flags/Boeing/sub to denver
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Containers Supplied:

4 oz Jar (B)

Sample ID: ISG0118-08

Soil

Sampled: 07/01/09 12:40

Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 12:40	\$35.00	0%	J Flags/Boeing/sub to denver
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Containers Supplied:

4 oz Jar (B)

LABORATORY REPORT

Prepared For: The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project: ISRA HV Waste Characterization
1891614.05452

Sampled: 07/01/09
Received: 07/01/09
Issued: 07/15/09 14:03

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

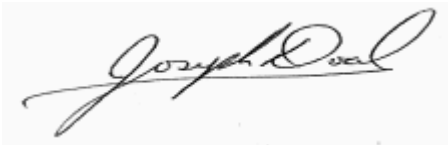
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
ISG0119-01	ISWC0004 S001	Soil
ISG0119-02	ISWC0003 S001	Soil
ISG0119-03	ISWC0002 S001	Soil
ISG0119-04	ISWC0001 S001	Soil
ISG0119-05	ISWC0005 S001	Soil
ISG0119-06	ISWC0006 S001	Soil
ISG0119-07	ISWC0007 S001	Soil
ISG0119-08	ISWC0008 S001	Soil

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0119-01 (ISWC0004 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	M2
Arsenic	EPA 6010B	9G06075	0.81	2.0	5.6	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	56	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.94	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	0.29	1	07/06/09	07/08/09	J
Chromium	EPA 6010B	9G06075	0.30	1.0	16	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	4.4	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	8.0	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	8.6	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.65	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	11	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	24	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	53	1	07/06/09	07/08/09	

Sample ID: ISG0119-02 (ISWC0003 S001 - Soil)

Sampled: 07/01/09

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	7.1	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	72	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.83	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06075	0.30	1.0	18	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	4.9	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	8.3	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	6.7	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.95	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	13	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	29	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	45	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0119-03 (ISWC0002 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	7.4	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	67	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.66	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06075	0.30	1.0	18	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	5.0	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	8.0	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	5.6	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.65	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	12	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	29	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	43	1	07/06/09	07/08/09	

Sample ID: ISG0119-04 (ISWC0001 S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	5.6	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	67	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.62	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06075	0.30	1.0	17	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	4.6	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	7.7	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	4.3	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.73	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	11	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	27	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	42	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0119-05 (ISWC0005 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	ND	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	120	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.96	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	0.20	1	07/06/09	07/08/09	J
Chromium	EPA 6010B	9G06075	0.30	1.0	4.7	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	5.0	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	7.8	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	3.0	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.36	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	5.0	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	1.1	1	07/06/09	07/08/09	B, J
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	26	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	53	1	07/06/09	07/08/09	

Sample ID: ISG0119-06 (ISWC0006 S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	4.8	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	92	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	1.2	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06075	0.30	1.0	11	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	4.5	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	9.3	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	6.3	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.58	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	8.0	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	26	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	53	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0119-07 (ISWC0007 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	5.7	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	64	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.70	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06075	0.30	1.0	17	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	4.5	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	7.5	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	4.4	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.90	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	12	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	26	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	47	1	07/06/09	07/08/09	

Sample ID: ISG0119-08 (ISWC0008 S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	6.9	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	74	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	1.9	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	0.39	1	07/06/09	07/08/09	J
Chromium	EPA 6010B	9G06075	0.30	1.0	19	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	4.9	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	9.5	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	8.7	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.92	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	13	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	31	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	57	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119

Sampled: 07/01/09
Received: 07/01/09

SW846 7471A

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0119-01 (ISWC0004 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.011	1	07/09/09	07/09/09	J
Sample ID: ISG0119-02 (ISWC0003 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.011	1	07/09/09	07/09/09	J
Sample ID: ISG0119-03 (ISWC0002 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.008	1	07/09/09	07/09/09	J
Sample ID: ISG0119-04 (ISWC0001 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.0081	1	07/09/09	07/09/09	J
Sample ID: ISG0119-05 (ISWC0005 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.037	1	07/09/09	07/09/09	J
Sample ID: ISG0119-06 (ISWC0006 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.012	1	07/09/09	07/09/09	J
Sample ID: ISG0119-07 (ISWC0007 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.0084	1	07/09/09	07/09/09	J
Sample ID: ISG0119-08 (ISWC0008 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.019	1	07/09/09	07/09/09	J

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Report Number: ISG0119

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0119-01 (ISWC0004 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	5.6	5.0	500	5.0
Barium	mg/kg	56	100	10000	100
Beryllium	mg/kg	0.94	0.75	75	
Cadmium	mg/kg	0.29	1.0	100	1.0
Chromium	mg/kg	16	5.0	2500	5.0
Cobalt	mg/kg	4.4	80	8000	
Copper	mg/kg	8.0	25	2500	
Lead	mg/kg	8.6	5.0	1000	5.0
Molybdenum	mg/kg	0.65	350	3500	
Nickel	mg/kg	11	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	24	24	2400	
Zinc	mg/kg	53	250	5000	
ISG0119-02 (ISWC0003 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	7.1	5.0	500	5.0
Barium	mg/kg	72	100	10000	100
Beryllium	mg/kg	0.83	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	18	5.0	2500	5.0
Cobalt	mg/kg	4.9	80	8000	
Copper	mg/kg	8.3	25	2500	
Lead	mg/kg	6.7	5.0	1000	5.0
Molybdenum	mg/kg	0.95	350	3500	
Nickel	mg/kg	13	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	29	24	2400	
Zinc	mg/kg	45	250	5000	

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POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0119-03 (ISWC0002 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	7.4	5.0	500	5.0
Barium	mg/kg	67	100	10000	100
Beryllium	mg/kg	0.66	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	18	5.0	2500	5.0
Cobalt	mg/kg	5.0	80	8000	
Copper	mg/kg	8.0	25	2500	
Lead	mg/kg	5.6	5.0	1000	5.0
Molybdenum	mg/kg	0.65	350	3500	
Nickel	mg/kg	12	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	29	24	2400	
Zinc	mg/kg	43	250	5000	
ISG0119-04 (ISWC0001 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	5.6	5.0	500	5.0
Barium	mg/kg	67	100	10000	100
Beryllium	mg/kg	0.62	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	17	5.0	2500	5.0
Cobalt	mg/kg	4.6	80	8000	
Copper	mg/kg	7.7	25	2500	
Lead	mg/kg	4.3	5.0	1000	5.0
Molybdenum	mg/kg	0.73	350	3500	
Nickel	mg/kg	11	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	27	24	2400	
Zinc	mg/kg	42	250	5000	

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Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0119-05 (ISWC0005 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	ND	5.0	500	5.0
Barium	mg/kg	120	100	10000	100
Beryllium	mg/kg	0.96	0.75	75	
Cadmium	mg/kg	0.20	1.0	100	1.0
Chromium	mg/kg	4.7	5.0	2500	5.0
Cobalt	mg/kg	5.0	80	8000	
Copper	mg/kg	7.8	25	2500	
Lead	mg/kg	3.0	5.0	1000	5.0
Molybdenum	mg/kg	0.36	350	3500	
Nickel	mg/kg	5.0	20	2000	
Selenium	mg/kg	1.1	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	26	24	2400	
Zinc	mg/kg	53	250	5000	
ISG0119-06 (ISWC0006 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.8	5.0	500	5.0
Barium	mg/kg	92	100	10000	100
Beryllium	mg/kg	1.2	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	11	5.0	2500	5.0
Cobalt	mg/kg	4.5	80	8000	
Copper	mg/kg	9.3	25	2500	
Lead	mg/kg	6.3	5.0	1000	5.0
Molybdenum	mg/kg	0.58	350	3500	
Nickel	mg/kg	8.0	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	26	24	2400	
Zinc	mg/kg	53	250	5000	

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Report Number: ISG0119

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0119-07 (ISWC0007 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	5.7	5.0	500	5.0
Barium	mg/kg	64	100	10000	100
Beryllium	mg/kg	0.70	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	17	5.0	2500	5.0
Cobalt	mg/kg	4.5	80	8000	
Copper	mg/kg	7.5	25	2500	
Lead	mg/kg	4.4	5.0	1000	5.0
Molybdenum	mg/kg	0.90	350	3500	
Nickel	mg/kg	12	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	26	24	2400	
Zinc	mg/kg	47	250	5000	
ISG0119-08 (ISWC0008 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	6.9	5.0	500	5.0
Barium	mg/kg	74	100	10000	100
Beryllium	mg/kg	1.9	0.75	75	
Cadmium	mg/kg	0.39	1.0	100	1.0
Chromium	mg/kg	19	5.0	2500	5.0
Cobalt	mg/kg	4.9	80	8000	
Copper	mg/kg	9.5	25	2500	
Lead	mg/kg	8.7	5.0	1000	5.0
Molybdenum	mg/kg	0.92	350	3500	
Nickel	mg/kg	13	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	31	24	2400	
Zinc	mg/kg	57	250	5000	

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ISG0119 <Page 10 of 15>

The Boeing Company-SSFL
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Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD RPD	Data Qualifiers
Batch: 9G06075 Extracted: 07/06/09										
Blank Analyzed: 07/08/2009 (9G06075-BLK1)										
Antimony	ND	10	0.88	mg/kg						
Arsenic	ND	2.0	0.81	mg/kg						
Barium	ND	1.0	0.80	mg/kg						
Beryllium	ND	0.50	0.20	mg/kg						
Cadmium	ND	0.50	0.20	mg/kg						
Chromium	ND	1.0	0.30	mg/kg						
Cobalt	ND	1.0	0.30	mg/kg						
Copper	ND	2.0	0.38	mg/kg						
Lead	ND	2.0	0.40	mg/kg						
Molybdenum	ND	2.0	0.20	mg/kg						
Nickel	ND	2.0	0.20	mg/kg						
Selenium	1.90	2.0	1.0	mg/kg						J
Silver	ND	1.0	0.80	mg/kg						
Thallium	ND	10	0.80	mg/kg						
Vanadium	ND	1.0	0.30	mg/kg						
Zinc	2.09	5.0	0.75	mg/kg						J
LCS Analyzed: 07/08/2009 (9G06075-BS1)										
Antimony	47.1	10	0.88	mg/kg	50.0		94		80-120	
Arsenic	47.2	2.0	0.81	mg/kg	50.0		94		80-120	
Barium	47.9	1.0	0.80	mg/kg	50.0		96		80-120	
Beryllium	46.9	0.50	0.20	mg/kg	50.0		94		80-120	
Cadmium	47.1	0.50	0.20	mg/kg	50.0		94		80-120	
Chromium	46.7	1.0	0.30	mg/kg	50.0		93		80-120	
Cobalt	46.2	1.0	0.30	mg/kg	50.0		92		80-120	
Copper	47.9	2.0	0.38	mg/kg	50.0		96		80-120	
Lead	47.5	2.0	0.40	mg/kg	50.0		95		80-120	
Molybdenum	44.8	2.0	0.20	mg/kg	50.0		90		80-120	
Nickel	47.6	2.0	0.20	mg/kg	50.0		95		80-120	
Selenium	44.0	2.0	1.0	mg/kg	50.0		88		80-120	
Silver	23.4	1.0	0.80	mg/kg	25.0		93		80-120	
Thallium	47.0	10	0.80	mg/kg	50.0		94		80-120	
Vanadium	47.1	1.0	0.30	mg/kg	50.0		94		80-120	
Zinc	47.1	5.0	0.75	mg/kg	50.0		94		80-120	

TestAmerica Irvine

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1891614.05452
Report Number: ISG0119

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9G06075 Extracted: 07/06/09											
Matrix Spike Analyzed: 07/08/2009 (9G06075-MS1)						Source: ISG0119-01					
Antimony	16.7	10	0.88	mg/kg	50.0	ND	33	75-125			M2
Arsenic	52.2	2.0	0.81	mg/kg	50.0	5.61	93	75-125			
Barium	107	1.0	0.80	mg/kg	50.0	56.3	102	75-125			
Beryllium	48.5	0.50	0.20	mg/kg	50.0	0.943	95	75-125			
Cadmium	46.8	0.50	0.20	mg/kg	50.0	0.287	93	75-125			
Chromium	62.9	1.0	0.30	mg/kg	50.0	15.5	95	75-125			
Cobalt	48.7	1.0	0.30	mg/kg	50.0	4.35	89	75-125			
Copper	55.7	2.0	0.38	mg/kg	50.0	7.97	96	75-125			
Lead	56.3	2.0	0.40	mg/kg	50.0	8.55	95	75-125			
Molybdenum	44.7	2.0	0.20	mg/kg	50.0	0.647	88	75-125			
Nickel	57.3	2.0	0.20	mg/kg	50.0	11.1	92	75-125			
Selenium	44.8	2.0	1.0	mg/kg	50.0	ND	90	75-125			
Silver	23.6	1.0	0.80	mg/kg	25.0	ND	95	75-125			
Thallium	42.5	10	0.80	mg/kg	50.0	ND	85	75-125			
Vanadium	72.4	1.0	0.30	mg/kg	50.0	24.1	97	75-125			
Zinc	101	5.0	0.75	mg/kg	50.0	53.2	95	75-125			
Matrix Spike Dup Analyzed: 07/08/2009 (9G06075-MSD1)						Source: ISG0119-01					
Antimony	20.4	10	0.88	mg/kg	50.0	ND	41	75-125	20	20	M2
Arsenic	53.0	2.0	0.81	mg/kg	50.0	5.61	95	75-125	1	20	
Barium	106	1.0	0.80	mg/kg	50.0	56.3	98	75-125	2	20	
Beryllium	49.2	0.50	0.20	mg/kg	50.0	0.943	97	75-125	2	20	
Cadmium	47.5	0.50	0.20	mg/kg	50.0	0.287	94	75-125	1	20	
Chromium	63.2	1.0	0.30	mg/kg	50.0	15.5	95	75-125	1	20	
Cobalt	49.5	1.0	0.30	mg/kg	50.0	4.35	90	75-125	2	20	
Copper	55.8	2.0	0.38	mg/kg	50.0	7.97	96	75-125	0	20	
Lead	58.2	2.0	0.40	mg/kg	50.0	8.55	99	75-125	3	20	
Molybdenum	45.8	2.0	0.20	mg/kg	50.0	0.647	90	75-125	3	20	
Nickel	57.8	2.0	0.20	mg/kg	50.0	11.1	93	75-125	1	20	
Selenium	45.4	2.0	1.0	mg/kg	50.0	ND	91	75-125	1	20	
Silver	23.8	1.0	0.80	mg/kg	25.0	ND	95	75-125	1	20	
Thallium	46.9	10	0.80	mg/kg	50.0	ND	94	75-125	10	20	
Vanadium	72.0	1.0	0.30	mg/kg	50.0	24.1	96	75-125	1	20	
Zinc	100	5.0	0.75	mg/kg	50.0	53.2	94	75-125	1	20	

TestAmerica Irvine

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 Report Number: ISG0119

Sampled: 07/01/09
 Received: 07/01/09

METHOD BLANK/QC DATA

SW846 7471A

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9189356 Extracted: 07/09/09											
Matrix Spike Dup Analyzed: 07/09/2009 (D9G070277001D)						Source: D9G070277001					
Mercury	0.368	0.033	0.0055	mg/kg	0.41	0.01	87	87-111	7	20	
Matrix Spike Analyzed: 07/09/2009 (D9G070277001S)						Source: D9G070277001					
Mercury	0.394	0.033	0.0055	mg/kg	0.41	0.01	94	87-111	7	20	
Blank Analyzed: 07/09/2009 (D9G080000356B)						Source:					
Mercury	ND	0.033	0.0055	mg/kg				-			
LCS Analyzed: 07/09/2009 (D9G080000356C)						Source:					
Mercury	0.364	0.033	0.0055	mg/kg	0.417		87	87-111			

TestAmerica Irvine

Joseph Doak
 Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119

Sampled: 07/01/09
Received: 07/01/09

DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

ISG0119 <Page 14 of 15>

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119

Sampled: 07/01/09
Received: 07/01/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: SW846 7471A

Samples: ISG0119-01, ISG0119-02, ISG0119-03, ISG0119-04, ISG0119-05, ISG0119-06, ISG0119-07,
ISG0119-08

TestAmerica Irvine

Joseph Doak
Project Manager

17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TSC0119

TestAmerica Laboratories, Inc.

Client Contact: **The Boeing Company SSFL**
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304
 Phone: _____
 FAX: _____
 Project Name: **ISRA HX WASTE CHARACTERIZATION**
 Site: Happy Valley
 PO # 7KSSISRA

Project Manager: Tom Venable
 Tel/Fax: 818-466-8779 / 818-466-4873

Site Contact: Shelby Valenzuela
 Lab Contact: Joe Doak

Date: **7-1-09**
 Carrier: **CORNER**

COC No: _____ of _____ COCs

Job No: **1891614.05452**

SDG No: _____

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont	Filtered Sample	Sample Specific Notes
15NC00045001	7-1-09	08:53	5-S. SURVEY	SOIL	1	X	ISRA - HNS-1
15NC00035001	7-1-09	09:16			1	X	
15NC00025001	7-1-09	09:37			1	X	
15NC00015001	7-1-09	09:55			1	X	
15NC00055001	7-1-09	10:04			1	X	
15NC00065001	7-1-09	10:29			1	X	
15NC00075001	7-1-09	10:48			1	X	
15NC00085001	7-1-09	11:01			1	X	

Analysis Turnaround Time: C
 Calendar (C) or Work Days (W)
 2 weeks
 1 week
 2 days
 1 day

TAT if different from Below: _____

Preservation Used: (1= Ice; 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other) _____

Possible Hazard Identification:
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments: Run STLC (WET) / TCLP if TTLC results ≥ 10x STLC / 20x TCLP thresholds

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Relinquished by: _____ Date/Time: 150527109
 Company: MWH

Relinquished by: _____ Date/Time: 7-1-09 18:30
 Company: Test America

Relinquished by: _____ Date/Time: _____
 Company: _____

Received by: _____ Date/Time: 7-1-09 15:05
 Company: Test America

Received by: _____ Date/Time: 7-1-09 08:30
 Company: Test America

Received by: _____ Date/Time: _____
 Company: _____

Handwritten notes: **press**, **0.010g**, **7/1/09**, **7-1-09**, **CR**, **27C**

070

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9G070279

Project ISG0119

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.



DiLea Griego
Project Manager

July 14, 2009

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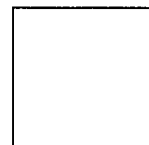
Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

(The Report Cover page is considered an integral part of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)



- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **QC Results**
- **Sample Receiving Checklist**
- **Chain of Custody**

Case Narrative

Enclosed is the report for eight samples received at the TestAmerica Laboratory in Denver on July 7, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D9G070279

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 1.2°C.

Total Metals- Method 7471A

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9G070279

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
ISG0119-01 07/01/09 08:53 001				
Mercury	0.011 J	0.033	mg/kg	SW846 7471A
ISG0119-02 07/01/09 09:16 002				
Mercury	0.011 J	0.033	mg/kg	SW846 7471A
ISG0119-03 07/01/09 09:37 003				
Mercury	0.0080 J	0.033	mg/kg	SW846 7471A
ISG0119-04 07/01/09 09:55 004				
Mercury	0.0081 J	0.033	mg/kg	SW846 7471A
ISG0119-05 07/01/09 10:04 005				
Mercury	0.037	0.033	mg/kg	SW846 7471A
ISG0119-06 07/01/09 10:29 006				
Mercury	0.012 J	0.033	mg/kg	SW846 7471A
ISG0119-07 07/01/09 10:48 007				
Mercury	0.0084 J	0.033	mg/kg	SW846 7471A
ISG0119-08 07/01/09 11:01 008				
Mercury	0.019 J	0.033	mg/kg	SW846 7471A

METHODS SUMMARY

D9G070279

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9G070279

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 7471A	Christopher Grisdale	9582

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9G070279

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LF5XW	001	ISG0119-01	07/01/09	08:53
LF5X2	002	ISG0119-02	07/01/09	09:16
LF5X3	003	ISG0119-03	07/01/09	09:37
LF5X4	004	ISG0119-04	07/01/09	09:55
LF5X5	005	ISG0119-05	07/01/09	10:04
LF5X6	006	ISG0119-06	07/01/09	10:29
LF5X7	007	ISG0119-07	07/01/09	10:48
LF5X8	008	ISG0119-08	07/01/09	11:01

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ISG0119-01

TOTAL Metals

Lot-Sample #...: D9G070279-001

Matrix.....: SOLID

Date Sampled...: 07/01/09 08:53 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
------------------	---------------	----------------------------	--------------	---------------	---------------------------------------	-------------------------

Prep Batch #...: 9189356

Mercury	0.011 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XW1AA
---------	---------	-------	-------	-------------	----------	----------

Dilution Factor: 1

Analysis Time...: 13:39

MDL.....: 0.0055

NOTE (S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0119-02

TOTAL Metals

Lot-Sample #...: D9G070279-002

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:16 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.011 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X21AA
		Dilution Factor: 1		Analysis Time...: 13:41	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0119-03

TOTAL Metals

Lot-Sample #...: D9G070279-003

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:37 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.0080 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X31AA
		Dilution Factor: 1		Analysis Time...: 13:44	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0119-04

TOTAL Metals

Lot-Sample #....: D9G070279-004

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:55 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #....: 9189356						
Mercury	0.0081 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X41AA
		Dilution Factor: 1		Analysis Time...: 13:46	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0119-05

TOTAL Metals

Lot-Sample #...: D9G070279-005

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:04 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.037	0.033	mg/kg	SW846 7471A	07/09/09	LF5X51AA
		Dilution Factor: 1		Analysis Time...: 13:53	MDL.....: 0.0055	

TestAmerica Irvine

Client Sample ID: ISG0119-06

TOTAL Metals

Lot-Sample #...: D9G070279-006

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:29 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...	9189356					
Mercury	0.012 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X61AA
		Dilution Factor: 1		Analysis Time...: 13:55	MDL.....: 0.0055	

NOTE (S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0119-07

TOTAL Metals

Lot-Sample #...: D9G070279-007

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:48 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.0084 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X71AA
		Dilution Factor: 1		Analysis Time...: 13:57	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0119-08

TOTAL Metals

Lot-Sample #...: D9G070279-008

Matrix.....: SOLID

Date Sampled...: 07/01/09 11:01 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.019 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X81AA
		Dilution Factor: 1		Analysis Time...: 14:00	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

QC DATA ASSOCIATION SUMMARY

D9G070279

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 7471A		9189356	9189207
002	SOLID	SW846 7471A		9189356	9189207
003	SOLID	SW846 7471A		9189356	9189207
004	SOLID	SW846 7471A		9189356	9189207
005	SOLID	SW846 7471A		9189356	9189207
006	SOLID	SW846 7471A		9189356	9189207
007	SOLID	SW846 7471A		9189356	9189207
008	SOLID	SW846 7471A		9189356	9189207

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D9G070279

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MB Lot-Sample #: D9G080000-356		Prep Batch #...: 9189356				
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF64P1AA
		Dilution Factor: 1				
		Analysis Time...: 13:02				

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070279

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
------------------	-----------------------------	----------------------------	---------------	---------------------------------------	---------------------

LCS Lot-Sample#: D9G080000-356 Prep Batch #...: 9189356

Mercury	87	(87 - 111)	SW846 7471A	07/09/09	LF64P1AC
---------	----	------------	-------------	----------	----------

Dilution Factor: 1 Analysis Time...: 13:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070279

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
------------------	-------------------------------	----------------------------------	--------------	--------------------------------	---------------	---	-------------------------------

LCS Lot-Sample#: D9G080000-356 Prep Batch #...: 9189356

Mercury	0.417	0.364	mg/kg	87	SW846 7471A	07/09/09	LF64P1AC
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Dilution Factor: 1 Analysis Time...: 13:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070279

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:02 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
------------------	-------------------------	------------------------	------------	-------------------	---------------	-----------------------------------	---------------------

MS Lot-Sample #: D9G070277-001 Prep Batch #...: 9189356

Mercury	94	(87 - 111)			SW846 7471A	07/09/09	LF5XJ1AC
	87	(87 - 111)	6.8	(0-20)	SW846 7471A	07/09/09	LF5XJ1AD

Dilution Factor: 1

Analysis Time...: 13:09

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070279

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:02 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>AMOUNT</u>	<u>SAMPLE SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
------------------	---------------	-------------------------	----------------------	--------------	----------------------	------------	---------------	-----------------------------------	---------------------

MS Lot-Sample #: D9G070277-001 Prep Batch #...: 9189356

Mercury

0.010	0.410	0.394	mg/kg	94			SW846 7471A	07/09/09	LF5XJ1AC
0.010	0.410	0.368	mg/kg	87	6.8		SW846 7471A	07/09/09	LF5XJ1AD

Dilution Factor: 1

Analysis Time..: 13:09

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

TestAmerica Denver
Sample Receiving Checklist

Lot #: D96070279 Date/Time Received: 7-7-09/0930
 Company Name & Sampling Site: TA IRVINE -BOEING

PM to Complete This Section: Yes No Quarantined: Yes No

Quote #: 72743

Special Instructions:

*Set AO N+O
7/15*

Time Zone: PST
 • EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 1.2° _____

N/A Yes No

Initials

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR. JK
- 2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: ___ No: ___
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative HCl 4±2°C Sodium Thiosulfate Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver
Sample Receiving Checklist

Lot # D9G070279

Login Checks:

N/A Yes No

Initials

CSA

19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
22. Were special log in instructions read and followed?
23. Were AFCEE metals logged for refrigerated storage?
24. Were tests logged checked against the COC? Which samples were confirmed? All
25. Was a Rush form completed for quick TAT?
26. Was a Short Hold form completed for any short holds?
27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

LC

28. Was the subcontract COC signed and sent with samples to bottle prep?
29. Were sample labels double-checked by a second person?
30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
31. Did the sample ID, Date, and Time from label match what was logged?
32. Were stickers for special archiving instructions affixed to each box? See #27
33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

1.2°

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0119

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: The Boeing Company-SSFL

RECEIVING LABORATORY:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone : (303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature: °C Ice: Y / N

Table with columns: Analysis, Units, Due, Expires, Interlab Price, Surch, Comments. Contains 6 sample entries (ISG0119-01 to ISG0119-06) for Mercury-7470/7471-OUT, each with associated dates, prices, and container information.

Released By: Olga Onelas Date/Time: 7/6/09 17:00

Received By: Fed Ex Date/Time: 7/6/09 17:00

Received By: Corina Bin Date/Time: 7-7-09 /0830

Released By

Date/Time

Received By

Date/Time

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0119

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
----------	-------	-----	---------	----------------	-------	----------

Sample ID: ISG0119-07	Soil					
						Sampled: 07/01/09 10:48
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 10:48	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i>						
4 oz Jar (B)						

Sample ID: ISG0119-08	Soil					
						Sampled: 07/01/09 11:01
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 11:01	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i>						
4 oz Jar (B)						

LABORATORY REPORT

Prepared For: The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project: ISRA HV Waste Characterization
1891614.05452

Sampled: 07/01/09
Received: 07/01/09
Issued: 07/28/09 12:49

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

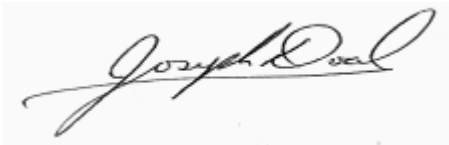
SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: This is an amended report to only include samples to be reported per the client's request. Samples to be included are ISG0119-07, -08.

LABORATORY ID	CLIENT ID	MATRIX
ISG0119-07	HZBS0152S001	Soil
ISG0119-08	HZBS0153S001	Soil

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119
SDG: ISG0119

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0119-07 (HZBS0152S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	5.7	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	64	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.70	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06075	0.30	1.0	17	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	4.5	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	7.5	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	4.4	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.90	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	12	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	26	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	47	1	07/06/09	07/08/09	

Sample ID: ISG0119-08 (HZBS0153S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	6.9	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	74	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	1.9	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	0.39	1	07/06/09	07/08/09	J
Chromium	EPA 6010B	9G06075	0.30	1.0	19	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	4.9	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	9.5	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	8.7	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.92	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	13	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	31	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	57	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119
SDG: ISG0119

Sampled: 07/01/09
Received: 07/01/09

SW846 7471A

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0119-07 (HZBS0152S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.0084	1	07/09/09	07/09/09	J
Sample ID: ISG0119-08 (HZBS0153S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189356	0.0055	0.033	0.019	1	07/09/09	07/09/09	J

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119
SDG: ISG0119

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD RPD	Data Qualifiers
Batch: 9G06075 Extracted: 07/06/09										
Blank Analyzed: 07/08/2009 (9G06075-BLK1)										
Antimony	ND	10	0.88	mg/kg						
Arsenic	ND	2.0	0.81	mg/kg						
Barium	ND	1.0	0.80	mg/kg						
Beryllium	ND	0.50	0.20	mg/kg						
Cadmium	ND	0.50	0.20	mg/kg						
Chromium	ND	1.0	0.30	mg/kg						
Cobalt	ND	1.0	0.30	mg/kg						
Copper	ND	2.0	0.38	mg/kg						
Lead	ND	2.0	0.40	mg/kg						
Molybdenum	ND	2.0	0.20	mg/kg						
Nickel	ND	2.0	0.20	mg/kg						
Selenium	1.90	2.0	1.0	mg/kg						J
Silver	ND	1.0	0.80	mg/kg						
Thallium	ND	10	0.80	mg/kg						
Vanadium	ND	1.0	0.30	mg/kg						
Zinc	2.09	5.0	0.75	mg/kg						J
LCS Analyzed: 07/08/2009 (9G06075-BS1)										
Antimony	47.1	10	0.88	mg/kg	50.0		94		80-120	
Arsenic	47.2	2.0	0.81	mg/kg	50.0		94		80-120	
Barium	47.9	1.0	0.80	mg/kg	50.0		96		80-120	
Beryllium	46.9	0.50	0.20	mg/kg	50.0		94		80-120	
Cadmium	47.1	0.50	0.20	mg/kg	50.0		94		80-120	
Chromium	46.7	1.0	0.30	mg/kg	50.0		93		80-120	
Cobalt	46.2	1.0	0.30	mg/kg	50.0		92		80-120	
Copper	47.9	2.0	0.38	mg/kg	50.0		96		80-120	
Lead	47.5	2.0	0.40	mg/kg	50.0		95		80-120	
Molybdenum	44.8	2.0	0.20	mg/kg	50.0		90		80-120	
Nickel	47.6	2.0	0.20	mg/kg	50.0		95		80-120	
Selenium	44.0	2.0	1.0	mg/kg	50.0		88		80-120	
Silver	23.4	1.0	0.80	mg/kg	25.0		93		80-120	
Thallium	47.0	10	0.80	mg/kg	50.0		94		80-120	
Vanadium	47.1	1.0	0.30	mg/kg	50.0		94		80-120	
Zinc	47.1	5.0	0.75	mg/kg	50.0		94		80-120	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119
SDG: ISG0119

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9G06075 Extracted: 07/06/09											
Matrix Spike Analyzed: 07/08/2009 (9G06075-MS1)						Source: ISG0119-01					
Antimony	16.7	10	0.88	mg/kg	50.0	ND	33	75-125			M2
Arsenic	52.2	2.0	0.81	mg/kg	50.0	5.61	93	75-125			
Barium	107	1.0	0.80	mg/kg	50.0	56.3	102	75-125			
Beryllium	48.5	0.50	0.20	mg/kg	50.0	0.943	95	75-125			
Cadmium	46.8	0.50	0.20	mg/kg	50.0	0.287	93	75-125			
Chromium	62.9	1.0	0.30	mg/kg	50.0	15.5	95	75-125			
Cobalt	48.7	1.0	0.30	mg/kg	50.0	4.35	89	75-125			
Copper	55.7	2.0	0.38	mg/kg	50.0	7.97	96	75-125			
Lead	56.3	2.0	0.40	mg/kg	50.0	8.55	95	75-125			
Molybdenum	44.7	2.0	0.20	mg/kg	50.0	0.647	88	75-125			
Nickel	57.3	2.0	0.20	mg/kg	50.0	11.1	92	75-125			
Selenium	44.8	2.0	1.0	mg/kg	50.0	ND	90	75-125			
Silver	23.6	1.0	0.80	mg/kg	25.0	ND	95	75-125			
Thallium	42.5	10	0.80	mg/kg	50.0	ND	85	75-125			
Vanadium	72.4	1.0	0.30	mg/kg	50.0	24.1	97	75-125			
Zinc	101	5.0	0.75	mg/kg	50.0	53.2	95	75-125			
Matrix Spike Dup Analyzed: 07/08/2009 (9G06075-MSD1)						Source: ISG0119-01					
Antimony	20.4	10	0.88	mg/kg	50.0	ND	41	75-125	20	20	M2
Arsenic	53.0	2.0	0.81	mg/kg	50.0	5.61	95	75-125	1	20	
Barium	106	1.0	0.80	mg/kg	50.0	56.3	98	75-125	2	20	
Beryllium	49.2	0.50	0.20	mg/kg	50.0	0.943	97	75-125	2	20	
Cadmium	47.5	0.50	0.20	mg/kg	50.0	0.287	94	75-125	1	20	
Chromium	63.2	1.0	0.30	mg/kg	50.0	15.5	95	75-125	1	20	
Cobalt	49.5	1.0	0.30	mg/kg	50.0	4.35	90	75-125	2	20	
Copper	55.8	2.0	0.38	mg/kg	50.0	7.97	96	75-125	0	20	
Lead	58.2	2.0	0.40	mg/kg	50.0	8.55	99	75-125	3	20	
Molybdenum	45.8	2.0	0.20	mg/kg	50.0	0.647	90	75-125	3	20	
Nickel	57.8	2.0	0.20	mg/kg	50.0	11.1	93	75-125	1	20	
Selenium	45.4	2.0	1.0	mg/kg	50.0	ND	91	75-125	1	20	
Silver	23.8	1.0	0.80	mg/kg	25.0	ND	95	75-125	1	20	
Thallium	46.9	10	0.80	mg/kg	50.0	ND	94	75-125	10	20	
Vanadium	72.0	1.0	0.30	mg/kg	50.0	24.1	96	75-125	1	20	
Zinc	100	5.0	0.75	mg/kg	50.0	53.2	94	75-125	1	20	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119
SDG: ISG0119

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

SW846 7471A

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9189356 Extracted: 07/09/09											
Matrix Spike Dup Analyzed: 07/09/2009 (D9G070277001D)						Source: D9G070277001					
Mercury	0.368	0.033	0.0055	mg/kg	0.41	0.01	87	87-111	7	20	
Matrix Spike Analyzed: 07/09/2009 (D9G070277001S)						Source: D9G070277001					
Mercury	0.394	0.033	0.0055	mg/kg	0.41	0.01	94	87-111	7	20	
Blank Analyzed: 07/09/2009 (D9G080000356B)						Source:					
Mercury	ND	0.033	0.0055	mg/kg				-			
LCS Analyzed: 07/09/2009 (D9G080000356C)						Source:					
Mercury	0.364	0.033	0.0055	mg/kg	0.417		87	87-111			

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119
SDG: ISG0119

Sampled: 07/01/09
Received: 07/01/09

DATA QUALIFIERS AND DEFINITIONS

- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

ISG0119 <Page 7 of 8>

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0119
SDG: ISG0119

Sampled: 07/01/09
Received: 07/01/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: SW846 7471A
Samples: ISG0119-07, ISG0119-08

TestAmerica Irvine

Joseph Doak
Project Manager

IRVINE

17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TSC0119

TestAmerica Laboratories, Inc.

Client Contact
 Project Manager: Tom Venable
 Tel/Fax: 818-466-8779 / 818-466-4873
 Site Contact: Shelby Valenzuela
 Lab Contact: Joe Doak
 Date: 7-1-09
 Carrier: CUBIER
 COC No: 1 of 1 COCs

Analysis Turnaround Time
 Calendar (C) or Work Days (W) C
 2 weeks
 1 week
 2 days
 1 day
 TAT if different from Below

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Sample Specific Notes
15NC00045001	7-1-09	08:53	5-S. SURVEY	SOIL	1	X	15RA-HNS-1
15NC00035001	7-1-09	09:16			1	X	
15NC00025001	7-1-09	09:37			1	X	
15NC00015001	7-1-09	09:55			1	X	
15NC00055001	7-1-09	10:04			1	X	
15NC00065001	7-1-09	10:29			1	X	
15NC00075001	7-1-09	10:48			1	X	
15NC00085001	7-1-09	11:01			1	X	

press

0.010g
7/1/09
V

7-1-09
CAR

7-1-09
CAR

Preservation Used: (1= Ice; 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other)
 Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown
 Special Instructions/QC Requirements & Comments: Run STLC (WET) / TCLP if TTLC results ≥ 10x STLC / 20x TCLP thresholds
 Return To Client Disposal By Lab Archive For 9 Months

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
<i>[Signature]</i>	MWH	7-1-09 15:05	<i>[Signature]</i>	Test America	7-1-09 15:05
<i>[Signature]</i>	Test America	7-1-09 18:30	<i>[Signature]</i>	Test America	7-1-09 18:30
<i>[Signature]</i>	Test America	7-1-09 18:30	<i>[Signature]</i>	Test America	7-1-09 18:30

27C

07C

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9G070279

Project ISG0119

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.


DiLea Griego
Project Manager

July 14, 2009

Table of Contents

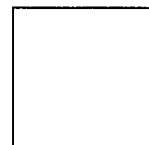
Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

(The Report Cover page is considered an integral part of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)



- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **QC Results**
- **Sample Receiving Checklist**
- **Chain of Custody**

Case Narrative

Enclosed is the report for eight samples received at the TestAmerica Laboratory in Denver on July 7, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D9G070279

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 1.2°C.

Total Metals- Method 7471A

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9G070279

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
ISG0119-01 07/01/09 08:53 001				
Mercury	0.011 J	0.033	mg/kg	SW846 7471A
ISG0119-02 07/01/09 09:16 002				
Mercury	0.011 J	0.033	mg/kg	SW846 7471A
ISG0119-03 07/01/09 09:37 003				
Mercury	0.0080 J	0.033	mg/kg	SW846 7471A
ISG0119-04 07/01/09 09:55 004				
Mercury	0.0081 J	0.033	mg/kg	SW846 7471A
ISG0119-05 07/01/09 10:04 005				
Mercury	0.037	0.033	mg/kg	SW846 7471A
ISG0119-06 07/01/09 10:29 006				
Mercury	0.012 J	0.033	mg/kg	SW846 7471A
ISG0119-07 07/01/09 10:48 007				
Mercury	0.0084 J	0.033	mg/kg	SW846 7471A
ISG0119-08 07/01/09 11:01 008				
Mercury	0.019 J	0.033	mg/kg	SW846 7471A

METHODS SUMMARY

D9G070279

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9G070279

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 7471A	Christopher Grisdale	9582

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9G070279

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LF5XW	001	ISG0119-01	07/01/09	08:53
LF5X2	002	ISG0119-02	07/01/09	09:16
LF5X3	003	ISG0119-03	07/01/09	09:37
LF5X4	004	ISG0119-04	07/01/09	09:55
LF5X5	005	ISG0119-05	07/01/09	10:04
LF5X6	006	ISG0119-06	07/01/09	10:29
LF5X7	007	ISG0119-07	07/01/09	10:48
LF5X8	008	ISG0119-08	07/01/09	11:01

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ISG0119-01

TOTAL Metals

Lot-Sample #...: D9G070279-001

Matrix.....: SOLID

Date Sampled...: 07/01/09 08:53 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
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Prep Batch #...: 9189356

Mercury	0.011 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XW1AA
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Dilution Factor: 1

Analysis Time...: 13:39

MDL.....: 0.0055

NOTE (S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0119-02

TOTAL Metals

Lot-Sample #...: D9G070279-002

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:16 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.011 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X21AA
		Dilution Factor: 1		Analysis Time...: 13:41	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0119-03

TOTAL Metals

Lot-Sample #...: D9G070279-003

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:37 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.0080 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X31AA
		Dilution Factor: 1		Analysis Time...: 13:44	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0119-04

TOTAL Metals

Lot-Sample #...: D9G070279-004

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:55 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.0081 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X41AA
		Dilution Factor: 1		Analysis Time...: 13:46	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0119-05

TOTAL Metals

Lot-Sample #...: D9G070279-005

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:04 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.037	0.033	mg/kg	SW846 7471A	07/09/09	LF5X51AA
		Dilution Factor: 1		Analysis Time...: 13:53	MDL.....: 0.0055	

TestAmerica Irvine

Client Sample ID: ISG0119-06

TOTAL Metals

Lot-Sample #...: D9G070279-006

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:29 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...	9189356					
Mercury	0.012 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X61AA
		Dilution Factor: 1		Analysis Time...: 13:55	MDL.....: 0.0055	

NOTE (S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0119-07

TOTAL Metals

Lot-Sample #...: D9G070279-007

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:48 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.0084 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X71AA
		Dilution Factor: 1		Analysis Time...: 13:57	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0119-08

TOTAL Metals

Lot-Sample #...: D9G070279-008

Matrix.....: SOLID

Date Sampled...: 07/01/09 11:01 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189356						
Mercury	0.019 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X81AA
		Dilution Factor: 1		Analysis Time...: 14:00	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

QC DATA ASSOCIATION SUMMARY

D9G070279

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 7471A		9189356	9189207
002	SOLID	SW846 7471A		9189356	9189207
003	SOLID	SW846 7471A		9189356	9189207
004	SOLID	SW846 7471A		9189356	9189207
005	SOLID	SW846 7471A		9189356	9189207
006	SOLID	SW846 7471A		9189356	9189207
007	SOLID	SW846 7471A		9189356	9189207
008	SOLID	SW846 7471A		9189356	9189207

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D9G070279

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MB Lot-Sample #: D9G080000-356		Prep Batch #...: 9189356				
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF64P1AA
		Dilution Factor: 1				
		Analysis Time...: 13:02				

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070279

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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LCS Lot-Sample#: D9G080000-356 Prep Batch #...: 9189356

Mercury	87	(87 - 111)	SW846 7471A	07/09/09	LF64P1AC
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Dilution Factor: 1 Analysis Time...: 13:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070279

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
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LCS Lot-Sample#: D9G080000-356 Prep Batch #...: 9189356

Mercury	0.417	0.364	mg/kg	87	SW846 7471A	07/09/09	LF64P1AC
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Dilution Factor: 1 Analysis Time...: 13:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070279

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:02 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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MS Lot-Sample #: D9G070277-001 Prep Batch #...: 9189356

Mercury	94	(87 - 111)			SW846 7471A	07/09/09	LF5XJ1AC
	87	(87 - 111)	6.8	(0-20)	SW846 7471A	07/09/09	LF5XJ1AD

Dilution Factor: 1

Analysis Time...: 13:09

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070279

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:02 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>AMOUNT</u>	<u>SPIKE</u> <u>AMT</u>	<u>MEASRD</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
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MS Lot-Sample #: D9G070277-001 Prep Batch #...: 9189356

Mercury

0.010	0.410	0.394	mg/kg	94			SW846 7471A	07/09/09	LF5XJ1AC
0.010	0.410	0.368	mg/kg	87	6.8		SW846 7471A	07/09/09	LF5XJ1AD

Dilution Factor: 1

Analysis Time..: 13:09

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

TestAmerica Denver
Sample Receiving Checklist

Lot #: D96070279 Date/Time Received: 7-7-09/0930
 Company Name & Sampling Site: TA IRVINE -BOEING

PM to Complete This Section: Yes No Quarantined: Yes No

Quote #: 72743

Special Instructions:

*Set AO N+O
7/15*

Time Zone: PST
 • EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 1.2° _____

N/A Yes No

Initials

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR. JK
- 2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: ___ No: ___
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative HCl 4±2°C Sodium Thiosulfate Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver
Sample Receiving Checklist

Lot # D9G070279

Login Checks:

N/A Yes No

Initials

CWA

19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
22. Were special log in instructions read and followed?
23. Were AFCEE metals logged for refrigerated storage?
24. Were tests logged checked against the COC? Which samples were confirmed? All
25. Was a Rush form completed for quick TAT?
26. Was a Short Hold form completed for any short holds?
27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

LC

28. Was the subcontract COC signed and sent with samples to bottle prep?
29. Were sample labels double-checked by a second person?
30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
31. Did the sample ID, Date, and Time from label match what was logged?
32. Were stickers for special archiving instructions affixed to each box? See #27
33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

1.2°

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0119

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: The Boeing Company-SSFL

RECEIVING LABORATORY:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone : (303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature: °C Ice: Y / N

Table with columns: Analysis, Units, Due, Expires, Interlab Price, Surch, Comments. Contains 6 sample entries (ISG0119-01 to ISG0119-06) for Mercury-7470/7471-OUT, each with associated dates, prices, and container information.

Released By: Olga Onelas Date/Time: 7/6/09 17:00

Received By: FedEx Date/Time: 7/6/09 17:00

Released By: _____ Date/Time: _____

Received By: Corina Bin Date/Time: 7-7-09 / 0830

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0119

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
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Sample ID: ISG0119-07	Soil					
						Sampled: 07/01/09 10:48
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 10:48	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i>						
4 oz Jar (B)						

Sample ID: ISG0119-08	Soil					
						Sampled: 07/01/09 11:01
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 11:01	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i>						
4 oz Jar (B)						

LABORATORY REPORT

Prepared For: The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project: ISRA HV Waste Characterization
1891614.05452

Sampled: 07/01/09
Received: 07/01/09
Issued: 07/15/09 14:11

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

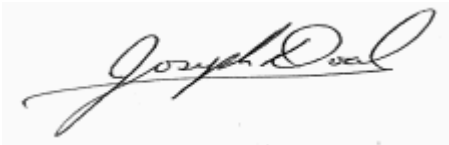
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
ISG0120-01	ISWC0009 S001	Soil
ISG0120-02	ISWC0010 S001	Soil
ISG0120-03	ISWC0011 S001	Soil
ISG0120-04	ISWC0012 S001	Soil
ISG0120-05	ISWC0013 S001	Soil
ISG0120-06	ISWC0014 S001	Soil
ISG0120-07	ISWC0015 S001	Soil
ISG0120-08	ISWC0016 S001	Soil

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0120

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0120-01 (ISWC0009 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	4.6	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	66	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.55	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	0.45	1	07/06/09	07/08/09	J
Chromium	EPA 6010B	9G06075	0.30	1.0	13	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	4.4	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	180	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	25	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.86	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	9.9	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	1.0	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	23	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	66	1	07/06/09	07/08/09	

Sample ID: ISG0120-02 (ISWC0010 S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	4.3	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	51	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.54	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06075	0.30	1.0	12	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	3.5	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	6.8	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	10	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.56	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	8.7	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	21	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	58	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0120

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0120-03 (ISWC0011 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	4.9	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	53	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.55	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	1.8	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06075	0.30	1.0	14	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	4.1	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	9.7	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	10	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.58	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	9.2	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	23	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	87	1	07/06/09	07/08/09	

Sample ID: ISG0120-04 (ISWC0012 S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	3.8	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	59	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.56	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06075	0.30	1.0	12	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	3.7	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	7.0	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	9.4	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.63	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	8.2	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	21	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	44	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0120

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0120-05 (ISWC0013 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	4.3	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	48	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.57	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06075	0.30	1.0	16	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	3.4	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	6.8	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	8.9	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.53	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	8.9	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	24	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	100	1	07/06/09	07/08/09	

Sample ID: ISG0120-06 (ISWC0014 S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	3.6	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	47	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.44	1	07/06/09	07/08/09	J
Cadmium	EPA 6010B	9G06075	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06075	0.30	1.0	11	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	3.3	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	8.4	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	12	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.54	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	7.4	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	19	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	67	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

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5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0120

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0120-07 (ISWC0015 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	5.9	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	54	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.45	1	07/06/09	07/08/09	J
Cadmium	EPA 6010B	9G06075	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06075	0.30	1.0	12	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	3.7	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	29	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	20	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.69	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	8.5	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	1.5	1	07/06/09	07/08/09	B, J
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	21	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	78	1	07/06/09	07/08/09	

Sample ID: ISG0120-08 (ISWC0016 S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06075	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06075	0.81	2.0	4.8	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06075	0.80	1.0	51	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06075	0.20	0.50	0.58	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06075	0.20	0.50	0.25	1	07/06/09	07/08/09	J
Chromium	EPA 6010B	9G06075	0.30	1.0	16	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06075	0.30	1.0	4.1	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06075	0.38	2.0	10	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06075	0.40	2.0	14	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06075	0.20	2.0	0.74	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06075	0.20	2.0	8.9	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06075	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06075	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06075	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06075	0.30	1.0	25	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06075	0.75	5.0	82	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0120

Sampled: 07/01/09
Received: 07/01/09

SW846 7471A

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0120-01 (ISWC0009 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.05	1	07/09/09	07/09/09	
Sample ID: ISG0120-02 (ISWC0010 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.011	1	07/09/09	07/09/09	J
Sample ID: ISG0120-03 (ISWC0011 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.014	1	07/09/09	07/09/09	J
Sample ID: ISG0120-04 (ISWC0012 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.014	1	07/09/09	07/09/09	J
Sample ID: ISG0120-05 (ISWC0013 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.0072	1	07/09/09	07/09/09	J
Sample ID: ISG0120-06 (ISWC0014 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.016	1	07/09/09	07/09/09	J
Sample ID: ISG0120-07 (ISWC0015 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.013	1	07/09/09	07/09/09	J
Sample ID: ISG0120-08 (ISWC0016 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.013	1	07/09/09	07/09/09	J

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
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Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0120

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0120-01 (ISWC0009 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.6	5.0	500	5.0
Barium	mg/kg	66	100	10000	100
Beryllium	mg/kg	0.55	0.75	75	
Cadmium	mg/kg	0.45	1.0	100	1.0
Chromium	mg/kg	13	5.0	2500	5.0
Cobalt	mg/kg	4.4	80	8000	
Copper	mg/kg	180	25	2500	
Lead	mg/kg	25	5.0	1000	5.0
Molybdenum	mg/kg	0.86	350	3500	
Nickel	mg/kg	9.9	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	1.0	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	23	24	2400	
Zinc	mg/kg	66	250	5000	
ISG0120-02 (ISWC0010 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.3	5.0	500	5.0
Barium	mg/kg	51	100	10000	100
Beryllium	mg/kg	0.54	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	12	5.0	2500	5.0
Cobalt	mg/kg	3.5	80	8000	
Copper	mg/kg	6.8	25	2500	
Lead	mg/kg	10	5.0	1000	5.0
Molybdenum	mg/kg	0.56	350	3500	
Nickel	mg/kg	8.7	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	21	24	2400	
Zinc	mg/kg	58	250	5000	

TestAmerica Irvine

Joseph Doak
Project Manager

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ISG0120 <Page 7 of 15>

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0120

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0120-03 (ISWC0011 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.9	5.0	500	5.0
Barium	mg/kg	53	100	10000	100
Beryllium	mg/kg	0.55	0.75	75	
Cadmium	mg/kg	1.8	1.0	100	1.0
Chromium	mg/kg	14	5.0	2500	5.0
Cobalt	mg/kg	4.1	80	8000	
Copper	mg/kg	9.7	25	2500	
Lead	mg/kg	10	5.0	1000	5.0
Molybdenum	mg/kg	0.58	350	3500	
Nickel	mg/kg	9.2	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	23	24	2400	
Zinc	mg/kg	87	250	5000	
ISG0120-04 (ISWC0012 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	3.8	5.0	500	5.0
Barium	mg/kg	59	100	10000	100
Beryllium	mg/kg	0.56	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	12	5.0	2500	5.0
Cobalt	mg/kg	3.7	80	8000	
Copper	mg/kg	7.0	25	2500	
Lead	mg/kg	9.4	5.0	1000	5.0
Molybdenum	mg/kg	0.63	350	3500	
Nickel	mg/kg	8.2	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	21	24	2400	
Zinc	mg/kg	44	250	5000	

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ISG0120 <Page 8 of 15>

The Boeing Company-SSFL
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Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0120

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0120-05 (ISWC0013 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.3	5.0	500	5.0
Barium	mg/kg	48	100	10000	100
Beryllium	mg/kg	0.57	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	16	5.0	2500	5.0
Cobalt	mg/kg	3.4	80	8000	
Copper	mg/kg	6.8	25	2500	
Lead	mg/kg	8.9	5.0	1000	5.0
Molybdenum	mg/kg	0.53	350	3500	
Nickel	mg/kg	8.9	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	24	24	2400	
Zinc	mg/kg	100	250	5000	
ISG0120-06 (ISWC0014 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	3.6	5.0	500	5.0
Barium	mg/kg	47	100	10000	100
Beryllium	mg/kg	0.44	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	11	5.0	2500	5.0
Cobalt	mg/kg	3.3	80	8000	
Copper	mg/kg	8.4	25	2500	
Lead	mg/kg	12	5.0	1000	5.0
Molybdenum	mg/kg	0.54	350	3500	
Nickel	mg/kg	7.4	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	19	24	2400	
Zinc	mg/kg	67	250	5000	

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

ISG0120 <Page 9 of 15>

The Boeing Company-SSFL
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304-1148
 Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
 1891614.05452
 Report Number: ISG0120

Sampled: 07/01/09
 Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0120-07 (ISWC0015 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	5.9	5.0	500	5.0
Barium	mg/kg	54	100	10000	100
Beryllium	mg/kg	0.45	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	12	5.0	2500	5.0
Cobalt	mg/kg	3.7	80	8000	
Copper	mg/kg	29	25	2500	
Lead	mg/kg	20	5.0	1000	5.0
Molybdenum	mg/kg	0.69	350	3500	
Nickel	mg/kg	8.5	20	2000	
Selenium	mg/kg	1.5	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	21	24	2400	
Zinc	mg/kg	78	250	5000	
ISG0120-08 (ISWC0016 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.8	5.0	500	5.0
Barium	mg/kg	51	100	10000	100
Beryllium	mg/kg	0.58	0.75	75	
Cadmium	mg/kg	0.25	1.0	100	1.0
Chromium	mg/kg	16	5.0	2500	5.0
Cobalt	mg/kg	4.1	80	8000	
Copper	mg/kg	10	25	2500	
Lead	mg/kg	14	5.0	1000	5.0
Molybdenum	mg/kg	0.74	350	3500	
Nickel	mg/kg	8.9	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	25	24	2400	
Zinc	mg/kg	82	250	5000	

TestAmerica Irvine

Joseph Doak
 Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0120

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD RPD	Data Qualifiers
Batch: 9G06075 Extracted: 07/06/09										
Blank Analyzed: 07/08/2009 (9G06075-BLK1)										
Antimony	ND	10	0.88	mg/kg						
Arsenic	ND	2.0	0.81	mg/kg						
Barium	ND	1.0	0.80	mg/kg						
Beryllium	ND	0.50	0.20	mg/kg						
Cadmium	ND	0.50	0.20	mg/kg						
Chromium	ND	1.0	0.30	mg/kg						
Cobalt	ND	1.0	0.30	mg/kg						
Copper	ND	2.0	0.38	mg/kg						
Lead	ND	2.0	0.40	mg/kg						
Molybdenum	ND	2.0	0.20	mg/kg						
Nickel	ND	2.0	0.20	mg/kg						
Selenium	1.90	2.0	1.0	mg/kg						J
Silver	ND	1.0	0.80	mg/kg						
Thallium	ND	10	0.80	mg/kg						
Vanadium	ND	1.0	0.30	mg/kg						
Zinc	2.09	5.0	0.75	mg/kg						J
LCS Analyzed: 07/08/2009 (9G06075-BS1)										
Antimony	47.1	10	0.88	mg/kg	50.0		94		80-120	
Arsenic	47.2	2.0	0.81	mg/kg	50.0		94		80-120	
Barium	47.9	1.0	0.80	mg/kg	50.0		96		80-120	
Beryllium	46.9	0.50	0.20	mg/kg	50.0		94		80-120	
Cadmium	47.1	0.50	0.20	mg/kg	50.0		94		80-120	
Chromium	46.7	1.0	0.30	mg/kg	50.0		93		80-120	
Cobalt	46.2	1.0	0.30	mg/kg	50.0		92		80-120	
Copper	47.9	2.0	0.38	mg/kg	50.0		96		80-120	
Lead	47.5	2.0	0.40	mg/kg	50.0		95		80-120	
Molybdenum	44.8	2.0	0.20	mg/kg	50.0		90		80-120	
Nickel	47.6	2.0	0.20	mg/kg	50.0		95		80-120	
Selenium	44.0	2.0	1.0	mg/kg	50.0		88		80-120	
Silver	23.4	1.0	0.80	mg/kg	25.0		93		80-120	
Thallium	47.0	10	0.80	mg/kg	50.0		94		80-120	
Vanadium	47.1	1.0	0.30	mg/kg	50.0		94		80-120	
Zinc	47.1	5.0	0.75	mg/kg	50.0		94		80-120	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0120

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9G06075 Extracted: 07/06/09											
Matrix Spike Analyzed: 07/08/2009 (9G06075-MS1)						Source: ISG0119-01					
Antimony	16.7	10	0.88	mg/kg	50.0	ND	33	75-125			M2
Arsenic	52.2	2.0	0.81	mg/kg	50.0	5.61	93	75-125			
Barium	107	1.0	0.80	mg/kg	50.0	56.3	102	75-125			
Beryllium	48.5	0.50	0.20	mg/kg	50.0	0.943	95	75-125			
Cadmium	46.8	0.50	0.20	mg/kg	50.0	0.287	93	75-125			
Chromium	62.9	1.0	0.30	mg/kg	50.0	15.5	95	75-125			
Cobalt	48.7	1.0	0.30	mg/kg	50.0	4.35	89	75-125			
Copper	55.7	2.0	0.38	mg/kg	50.0	7.97	96	75-125			
Lead	56.3	2.0	0.40	mg/kg	50.0	8.55	95	75-125			
Molybdenum	44.7	2.0	0.20	mg/kg	50.0	0.647	88	75-125			
Nickel	57.3	2.0	0.20	mg/kg	50.0	11.1	92	75-125			
Selenium	44.8	2.0	1.0	mg/kg	50.0	ND	90	75-125			
Silver	23.6	1.0	0.80	mg/kg	25.0	ND	95	75-125			
Thallium	42.5	10	0.80	mg/kg	50.0	ND	85	75-125			
Vanadium	72.4	1.0	0.30	mg/kg	50.0	24.1	97	75-125			
Zinc	101	5.0	0.75	mg/kg	50.0	53.2	95	75-125			
Matrix Spike Dup Analyzed: 07/08/2009 (9G06075-MSD1)						Source: ISG0119-01					
Antimony	20.4	10	0.88	mg/kg	50.0	ND	41	75-125	20	20	M2
Arsenic	53.0	2.0	0.81	mg/kg	50.0	5.61	95	75-125	1	20	
Barium	106	1.0	0.80	mg/kg	50.0	56.3	98	75-125	2	20	
Beryllium	49.2	0.50	0.20	mg/kg	50.0	0.943	97	75-125	2	20	
Cadmium	47.5	0.50	0.20	mg/kg	50.0	0.287	94	75-125	1	20	
Chromium	63.2	1.0	0.30	mg/kg	50.0	15.5	95	75-125	1	20	
Cobalt	49.5	1.0	0.30	mg/kg	50.0	4.35	90	75-125	2	20	
Copper	55.8	2.0	0.38	mg/kg	50.0	7.97	96	75-125	0	20	
Lead	58.2	2.0	0.40	mg/kg	50.0	8.55	99	75-125	3	20	
Molybdenum	45.8	2.0	0.20	mg/kg	50.0	0.647	90	75-125	3	20	
Nickel	57.8	2.0	0.20	mg/kg	50.0	11.1	93	75-125	1	20	
Selenium	45.4	2.0	1.0	mg/kg	50.0	ND	91	75-125	1	20	
Silver	23.8	1.0	0.80	mg/kg	25.0	ND	95	75-125	1	20	
Thallium	46.9	10	0.80	mg/kg	50.0	ND	94	75-125	10	20	
Vanadium	72.0	1.0	0.30	mg/kg	50.0	24.1	96	75-125	1	20	
Zinc	100	5.0	0.75	mg/kg	50.0	53.2	94	75-125	1	20	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304-1148
 Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
 1891614.05452
 Report Number: ISG0120

Sampled: 07/01/09
 Received: 07/01/09

METHOD BLANK/QC DATA

SW846 7471A

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9189358 Extracted: 07/09/09											
Matrix Spike Dup Analyzed: 07/09/2009 (D9G070280001D)						Source: D9G070280001					
Mercury	0.419	0.033	0.0055	mg/kg	0.41	0.0066	101	87-111	1	20	
Matrix Spike Analyzed: 07/09/2009 (D9G070280001S)						Source: D9G070280001					
Mercury	0.416	0.033	0.0055	mg/kg	0.41	0.0066	100	87-111	1	20	
Blank Analyzed: 07/09/2009 (D9G080000358B)						Source:					
Mercury	ND	0.033	0.0055	mg/kg				-			
LCS Analyzed: 07/09/2009 (D9G080000358C)						Source:					
Mercury	0.377	0.033	0.0055	mg/kg	0.417		90	87-111			

TestAmerica Irvine

Joseph Doak
 Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0120

Sampled: 07/01/09
Received: 07/01/09

DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Joseph Doak
Project Manager

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ISG0120 <Page 14 of 15>

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0120

Sampled: 07/01/09
Received: 07/01/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: SW846 7471A

Samples: ISG0120-01, ISG0120-02, ISG0120-03, ISG0120-04, ISG0120-05, ISG0120-06, ISG0120-07,
ISG0120-08

TestAmerica Irvine

Joseph Doak
Project Manager

Chain of Custody Record

ISDA-HVS-3

IS 60 120

Client Contact: Shelby Valenzuela
Site Contact: Shelby Valenzuela
Lab Contact: Joe Doak

Project Manager: Tom Venable
Tel/Fax: 818-466-8779 / 818-466-4873

Analysis Turnaround Time: 2 weeks
Calendar (C) or Work Days (W): C

Sample Identification: ISWC0009 5001 (0.2-0.7')
ISWC0010 5001 (0.3-0.6')
ISWC0011 5001 (0-0.5')
ISWC0012 5001 (1.1-1.6')
ISWC0013 5001 (1.5'-2.0')
ISWC0014 5001 (0-0.5', alluv)
ISWC0015 5001 (0.0-0.5')
ISWC0016 5001 (0-0.5')

Sample Date: 7/1/09
Sample Time: 0900
Sample Type: S
Matrix: alluv

Sample Date: 7/1/09
Sample Time: 0930
Sample Type: S
Matrix: alluv

Sample Date: 7/1/09
Sample Time: 0940
Sample Type: S
Matrix: alluv

Sample Date: 7/1/09
Sample Time: 0940
Sample Type: S
Matrix: alluv

Sample Date: 7/1/09
Sample Time: 0915
Sample Type: S
Matrix: alluv

Sample Date: 7/1/09
Sample Time: 1010
Sample Type: S
Matrix: alluv

Sample Date: 7/1/09
Sample Time: 0950
Sample Type: S
Matrix: alluv

Sample Specific Notes: ISRA-HVS-3

Job No. 1591614.05452
SDG No.

COG No. of COGS

Date: 7/1/09
Carrier: Camper

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For 6 Months

Relinquished by: [Signature] Date/Time: 7/1/09 15:05
Relinquished by: [Signature] Date/Time: 7/1/09 08:00
Relinquished by: [Signature] Date/Time: 7/1/09 08:00

Company: Test America
Company: Test America
Company: Test America

Received by: [Signature] Date/Time: 15057/1/09
Received by: [Signature] Date/Time: 7/1/09 16:30
Received by: [Signature] Date/Time: 7/1/09 16:30

Special Instructions/QC Requirements & Comments: Run STLC (WET) / TCLP if TTLC results ≥ 10x STLC / 20x TCLP thresholds

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other
Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown

2-7C

030

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9G070281

Project ISG0120

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.



DiLea Griego
Project Manager

July 14, 2009

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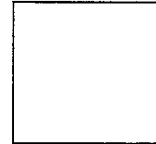
Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

*(The **Report Cover** page is considered an integral part of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)*



- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **QC Results**
- **Sample Receiving Checklist**
- **Chain of Custody**

Case Narrative

Enclosed is the report for eight samples received at the TestAmerica Laboratory in Denver on July 7, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D9G070281

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 1.2°C.

Total Metals- Method 7471A

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9G070281

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
ISG0120-01 07/01/09 09:00 001				
Mercury	0.050	0.033	mg/kg	SW846 7471A
ISG0120-02 07/01/09 09:30 002				
Mercury	0.011 J	0.033	mg/kg	SW846 7471A
ISG0120-03 07/01/09 10:00 003				
Mercury	0.014 J	0.033	mg/kg	SW846 7471A
ISG0120-04 07/01/09 09:20 004				
Mercury	0.014 J	0.033	mg/kg	SW846 7471A
ISG0120-05 07/01/09 09:40 005				
Mercury	0.0072 J	0.033	mg/kg	SW846 7471A
ISG0120-06 07/01/09 09:15 006				
Mercury	0.016 J	0.033	mg/kg	SW846 7471A
ISG0120-07 07/01/09 10:10 007				
Mercury	0.013 J	0.033	mg/kg	SW846 7471A
ISG0120-08 07/01/09 10:50 008				
Mercury	0.013 J	0.033	mg/kg	SW846 7471A

METHODS SUMMARY

D9G070281

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9G070281

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 7471A	Christopher Grisdale	9582

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9G070281

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LF50J	001	ISG0120-01	07/01/09	09:00
LF50K	002	ISG0120-02	07/01/09	09:30
LF50L	003	ISG0120-03	07/01/09	10:00
LF50M	004	ISG0120-04	07/01/09	09:20
LF50N	005	ISG0120-05	07/01/09	09:40
LF50P	006	ISG0120-06	07/01/09	09:15
LF50Q	007	ISG0120-07	07/01/09	10:10
LF50R	008	ISG0120-08	07/01/09	10:50

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ISG0120-01

TOTAL Metals

Lot-Sample #...: D9G070281-001

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:00 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.050	0.033	mg/kg	SW846 7471A	07/09/09	LF50J1AA
		Dilution Factor: 1		Analysis Time...: 14:45	MDL.....: 0.0055	

TestAmerica Irvine

Client Sample ID: ISG0120-02

TOTAL Metals

Lot-Sample #...: D9G070281-002

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:30 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.011 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50K1AA
		Dilution Factor: 1		Analysis Time...: 14:47	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0120-03

TOTAL Metals

Lot-Sample #...: D9G070281-003

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:00 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...:	9189358					
Mercury	0.014 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50L1AA
		Dilution Factor: 1		Analysis Time...: 14:50	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0120-04

TOTAL Metals

Lot-Sample #...: D9G070281-004

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:20 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.014 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50M1AA
		Dilution Factor: 1		Analysis Time...: 14:52	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0120-05

TOTAL Metals

Lot-Sample #...: D9G070281-005

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:40 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.0072 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50N1AA
		Dilution Factor: 1		Analysis Time...: 14:54	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0120-06

TOTAL Metals

Lot-Sample #...: D9G070281-006

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:15 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.016 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50P1AA
		Dilution Factor: 1		Analysis Time...: 14:57	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0120-07

TOTAL Metals

Lot-Sample #...: D9G070281-007

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:10 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.013 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50Q1AA
		Dilution Factor: 1		Analysis Time...: 14:59	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0120-08

TOTAL Metals

Lot-Sample #...: D9G070281-008

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:50 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.013 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50R1AA
		Dilution Factor: 1		Analysis Time...: 15:01	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

QC DATA ASSOCIATION SUMMARY

D9G070281

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 7471A		9189358	9189209
002	SOLID	SW846 7471A		9189358	9189209
003	SOLID	SW846 7471A		9189358	9189209
004	SOLID	SW846 7471A		9189358	9189209
005	SOLID	SW846 7471A		9189358	9189209
006	SOLID	SW846 7471A		9189358	9189209
007	SOLID	SW846 7471A		9189358	9189209
008	SOLID	SW846 7471A		9189358	9189209

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D9G070281

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MB Lot-Sample #: D9G080000-358		Prep Batch #...: 9189358				
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF6411AA
		Dilution Factor: 1				
		Analysis Time...: 14:02				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070281

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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LCS Lot-Sample#: D9G080000-358 Prep Batch #...: 9189358

Mercury	90	(87 - 111)	SW846 7471A	07/09/09	LF6411AC
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Dilution Factor: 1 Analysis Time...: 14:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070281

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
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LCS Lot-Sample#: D9G080000-358 Prep Batch #...: 9189358

Mercury	0.417	0.377	mg/kg	90	SW846 7471A	07/09/09	LF6411AC
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Dilution Factor: 1

Analysis Time...: 14:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070281

Matrix.....: SOLID

Date Sampled...: 07/01/09 08:53 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
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MS Lot-Sample #: D9G070280-001 Prep Batch #...: 9189358

Mercury	100	(87 - 111)			SW846 7471A	07/09/09	LF5X91AC
	101	(87 - 111)	0.60	(0-20)	SW846 7471A	07/09/09	LF5X91AD

Dilution Factor: 1

Analysis Time...: 14:15

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070281

Matrix.....: SOLID

Date Sampled...: 07/01/09 08:53 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>AMOUNT</u>	<u>SPIKE</u> <u>AMT</u>	<u>MEASRD</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
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MS Lot-Sample #: D9G070280-001 Prep Batch #...: 9189358

Mercury

0.0066	0.410	0.416	mg/kg	100			SW846 7471A	07/09/09	LF5X91AC
0.0066	0.410	0.419	mg/kg	101	0.60		SW846 7471A	07/09/09	LF5X91AD

Dilution Factor: 1

Analysis Time...: 14:15

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

TestAmerica Denver
Sample Receiving Checklist

Lot #: D96070281 Date/Time Received: 7-7-09 / 0930

Company Name & Sampling Site: TA IRVINE - BOEING

PM to Complete This Section: *Yes* *No*
 Residual chlorine check required: Quarantined:

Quote #: 72743

Special Instructions:

Set A & B to 7/15

Time Zone:
 • EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 1.2° _____

N/A Yes No

Initials

dc

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading \leq to background levels? Yes: No:
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative HCl 4±2°C Sodium Thiosulfate Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver
Sample Receiving Checklist

Lot # D9G070281

Login Checks:

Initials

N/A Yes No

CHC

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? AA
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

CC

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

1.2°C
M
7-7-09

SUBCONTRACT ORDER
TestAmerica Irvine
ISG0120

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: The Boeing Company-SSFL

RECEIVING LABORATORY:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone : (303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ISG0120-01	Soil					Sampled: 07/01/09 09:00
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 09:00	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0120-02	Soil					Sampled: 07/01/09 09:30
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 09:30	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0120-03	Soil					Sampled: 07/01/09 10:00
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 10:00	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0120-04	Soil					Sampled: 07/01/09 09:20
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 09:20	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0120-05	Soil					Sampled: 07/01/09 09:40
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 09:40	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0120-06	Soil					Sampled: 07/01/09 09:15
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 09:15	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						

Olga Ornelas 7/6/09 17:00
Released By Date/Time

Fedex 7/6/09 17:00
Received By Date/Time

Coine Gui 7-7-09/0930
Received By Date/Time

Released By

Date/Time

Received By

Date/Time

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0120

Analysis	Units	Due	Expires	Interlab	Price Surch	Comments
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Sample ID: ISG0120-07	Soil					
						Sampled: 07/01/09 10:10
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 10:10	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i>						
4 oz Jar (B)						

Sample ID: ISG0120-08	Soil					
						Sampled: 07/01/09 10:50
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 10:50	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i>						
4 oz Jar (B)						

LABORATORY REPORT

Prepared For: The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project: ISRA HV Waste Characterization
1891614.05452

Sampled: 07/01/09
Received: 07/01/09
Issued: 07/15/09 14:21

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

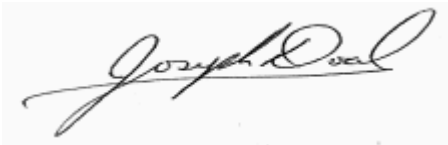
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
ISG0121-01	ISWC0033 S001	Soil
ISG0121-02	ISWC0034 S001	Soil
ISG0121-03	ISWC0035 S001	Soil
ISG0121-04	ISWC0036 S001	Soil
ISG0121-05	ISWC0037 S001	Soil
ISG0121-06	ISWC0038 S001	Soil
ISG0121-07	ISWC0039 S001	Soil
ISG0121-08	ISWC0040 S001	Soil

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0121-01 (ISWC0033 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	M2
Arsenic	EPA 6010B	9G06076	0.81	2.0	4.3	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	74	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.64	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	23	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	7.1	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	13	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	6.9	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.83	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	14	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	40	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	57	1	07/06/09	07/08/09	

Sample ID: ISG0121-02 (ISWC0034 S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	5.2	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	79	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.68	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	23	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	7.5	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	14	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	7.4	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.99	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	15	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	1.1	1	07/06/09	07/08/09	J
Vanadium	EPA 6010B	9G06076	0.30	1.0	40	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	60	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0121-03 (ISWC0035 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	4.3	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	76	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.65	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	23	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	7.6	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	13	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	6.7	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.80	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	15	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	41	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	60	1	07/06/09	07/08/09	

Sample ID: ISG0121-04 (ISWC0036 S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	4.3	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	76	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.65	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	24	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	7.6	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	13	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	6.5	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.75	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	15	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	39	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	60	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0121-05 (ISWC0037 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	4.2	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	80	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.70	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	26	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	7.9	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	14	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	8.1	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.74	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	16	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	45	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	65	1	07/06/09	07/08/09	

Sample ID: ISG0121-06 (ISWC0038 S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	3.5	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	38	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.58	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	14	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	4.0	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	4.6	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	3.6	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.60	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	8.0	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	19	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	31	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0121-07 (ISWC0039 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	6.7	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	56	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.67	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	18	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	5.6	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	13	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	11	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.82	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	12	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	29	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	57	1	07/06/09	07/08/09	

Sample ID: ISG0121-08 (ISWC0040 S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	5.9	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	44	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.75	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	17	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	6.3	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	8.2	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	6.7	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.63	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	9.5	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	27	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	39	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304-1148
 Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
 1891614.05452
 Report Number: ISG0121

Sampled: 07/01/09
 Received: 07/01/09

SW846 7471A

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0121-01 (ISWC0033 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.0066	1	07/09/09	07/09/09	J
Sample ID: ISG0121-02 (ISWC0034 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.0095	1	07/09/09	07/09/09	J
Sample ID: ISG0121-03 (ISWC0035 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.008	1	07/09/09	07/09/09	J
Sample ID: ISG0121-04 (ISWC0036 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.008	1	07/09/09	07/09/09	J
Sample ID: ISG0121-05 (ISWC0037 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.0079	1	07/09/09	07/09/09	J
Sample ID: ISG0121-06 (ISWC0038 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.0063	1	07/09/09	07/09/09	J
Sample ID: ISG0121-07 (ISWC0039 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.021	1	07/09/09	07/09/09	J
Sample ID: ISG0121-08 (ISWC0040 S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.025	1	07/09/09	07/09/09	J

TestAmerica Irvine

Joseph Doak
 Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0121-01 (ISWC0033 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.3	5.0	500	5.0
Barium	mg/kg	74	100	10000	100
Beryllium	mg/kg	0.64	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	23	5.0	2500	5.0
Cobalt	mg/kg	7.1	80	8000	
Copper	mg/kg	13	25	2500	
Lead	mg/kg	6.9	5.0	1000	5.0
Molybdenum	mg/kg	0.83	350	3500	
Nickel	mg/kg	14	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	40	24	2400	
Zinc	mg/kg	57	250	5000	
ISG0121-02 (ISWC0034 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	5.2	5.0	500	5.0
Barium	mg/kg	79	100	10000	100
Beryllium	mg/kg	0.68	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	23	5.0	2500	5.0
Cobalt	mg/kg	7.5	80	8000	
Copper	mg/kg	14	25	2500	
Lead	mg/kg	7.4	5.0	1000	5.0
Molybdenum	mg/kg	0.99	350	3500	
Nickel	mg/kg	15	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	1.1	7.0	700	
Vanadium	mg/kg	40	24	2400	
Zinc	mg/kg	60	250	5000	

TestAmerica Irvine

Joseph Doak
Project Manager

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Canoga Park, CA 91304-1148
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Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0121-03 (ISWC0035 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.3	5.0	500	5.0
Barium	mg/kg	76	100	10000	100
Beryllium	mg/kg	0.65	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	23	5.0	2500	5.0
Cobalt	mg/kg	7.6	80	8000	
Copper	mg/kg	13	25	2500	
Lead	mg/kg	6.7	5.0	1000	5.0
Molybdenum	mg/kg	0.80	350	3500	
Nickel	mg/kg	15	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	41	24	2400	
Zinc	mg/kg	60	250	5000	
ISG0121-04 (ISWC0036 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.3	5.0	500	5.0
Barium	mg/kg	76	100	10000	100
Beryllium	mg/kg	0.65	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	24	5.0	2500	5.0
Cobalt	mg/kg	7.6	80	8000	
Copper	mg/kg	13	25	2500	
Lead	mg/kg	6.5	5.0	1000	5.0
Molybdenum	mg/kg	0.75	350	3500	
Nickel	mg/kg	15	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	39	24	2400	
Zinc	mg/kg	60	250	5000	

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ISG0121 <Page 8 of 15>

The Boeing Company-SSFL
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Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0121-05 (ISWC0037 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.2	5.0	500	5.0
Barium	mg/kg	80	100	10000	100
Beryllium	mg/kg	0.70	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	26	5.0	2500	5.0
Cobalt	mg/kg	7.9	80	8000	
Copper	mg/kg	14	25	2500	
Lead	mg/kg	8.1	5.0	1000	5.0
Molybdenum	mg/kg	0.74	350	3500	
Nickel	mg/kg	16	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	45	24	2400	
Zinc	mg/kg	65	250	5000	
ISG0121-06 (ISWC0038 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	3.5	5.0	500	5.0
Barium	mg/kg	38	100	10000	100
Beryllium	mg/kg	0.58	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	14	5.0	2500	5.0
Cobalt	mg/kg	4.0	80	8000	
Copper	mg/kg	4.6	25	2500	
Lead	mg/kg	3.6	5.0	1000	5.0
Molybdenum	mg/kg	0.60	350	3500	
Nickel	mg/kg	8.0	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	19	24	2400	
Zinc	mg/kg	31	250	5000	

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Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0121-07 (ISWC0039 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	6.7	5.0	500	5.0
Barium	mg/kg	56	100	10000	100
Beryllium	mg/kg	0.67	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	18	5.0	2500	5.0
Cobalt	mg/kg	5.6	80	8000	
Copper	mg/kg	13	25	2500	
Lead	mg/kg	11	5.0	1000	5.0
Molybdenum	mg/kg	0.82	350	3500	
Nickel	mg/kg	12	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	29	24	2400	
Zinc	mg/kg	57	250	5000	
ISG0121-08 (ISWC0040 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	5.9	5.0	500	5.0
Barium	mg/kg	44	100	10000	100
Beryllium	mg/kg	0.75	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	17	5.0	2500	5.0
Cobalt	mg/kg	6.3	80	8000	
Copper	mg/kg	8.2	25	2500	
Lead	mg/kg	6.7	5.0	1000	5.0
Molybdenum	mg/kg	0.63	350	3500	
Nickel	mg/kg	9.5	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	27	24	2400	
Zinc	mg/kg	39	250	5000	

TestAmerica Irvine

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Project Manager

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Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD RPD	Data Qualifiers
Batch: 9G06076 Extracted: 07/06/09										
Blank Analyzed: 07/08/2009 (9G06076-BLK1)										
Antimony	ND	10	0.88	mg/kg						
Arsenic	ND	2.0	0.81	mg/kg						
Barium	ND	1.0	0.80	mg/kg						
Beryllium	ND	0.50	0.20	mg/kg						
Cadmium	ND	0.50	0.20	mg/kg						
Chromium	ND	1.0	0.30	mg/kg						
Cobalt	ND	1.0	0.30	mg/kg						
Copper	ND	2.0	0.38	mg/kg						
Lead	ND	2.0	0.40	mg/kg						
Molybdenum	ND	2.0	0.20	mg/kg						
Nickel	ND	2.0	0.20	mg/kg						
Selenium	ND	2.0	1.0	mg/kg						
Silver	ND	1.0	0.80	mg/kg						
Thallium	ND	10	0.80	mg/kg						
Vanadium	ND	1.0	0.30	mg/kg						
Zinc	ND	5.0	0.75	mg/kg						
LCS Analyzed: 07/08/2009 (9G06076-BS1)										
Antimony	44.7	10	0.88	mg/kg	50.0		89	80-120		
Arsenic	45.0	2.0	0.81	mg/kg	50.0		90	80-120		
Barium	45.7	1.0	0.80	mg/kg	50.0		91	80-120		
Beryllium	44.3	0.50	0.20	mg/kg	50.0		89	80-120		
Cadmium	45.0	0.50	0.20	mg/kg	50.0		90	80-120		
Chromium	44.9	1.0	0.30	mg/kg	50.0		90	80-120		
Cobalt	43.7	1.0	0.30	mg/kg	50.0		87	80-120		
Copper	44.8	2.0	0.38	mg/kg	50.0		90	80-120		
Lead	45.6	2.0	0.40	mg/kg	50.0		91	80-120		
Molybdenum	42.8	2.0	0.20	mg/kg	50.0		86	80-120		
Nickel	45.4	2.0	0.20	mg/kg	50.0		91	80-120		
Selenium	42.6	2.0	1.0	mg/kg	50.0		85	80-120		
Silver	22.3	1.0	0.80	mg/kg	25.0		89	80-120		
Thallium	44.8	10	0.80	mg/kg	50.0		90	80-120		
Vanadium	44.7	1.0	0.30	mg/kg	50.0		89	80-120		
Zinc	43.8	5.0	0.75	mg/kg	50.0		88	80-120		

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9G06076 Extracted: 07/06/09											
Matrix Spike Analyzed: 07/08/2009 (9G06076-MS1)						Source: ISG0121-01					
Antimony	13.4	10	0.88	mg/kg	50.0	ND	27	75-125			M2
Arsenic	47.6	2.0	0.81	mg/kg	50.0	4.33	87	75-125			
Barium	118	1.0	0.80	mg/kg	50.0	73.7	89	75-125			
Beryllium	45.2	0.50	0.20	mg/kg	50.0	0.640	89	75-125			
Cadmium	43.6	0.50	0.20	mg/kg	50.0	ND	87	75-125			
Chromium	66.8	1.0	0.30	mg/kg	50.0	22.6	88	75-125			
Cobalt	48.6	1.0	0.30	mg/kg	50.0	7.12	83	75-125			
Copper	58.4	2.0	0.38	mg/kg	50.0	12.9	91	75-125			
Lead	50.0	2.0	0.40	mg/kg	50.0	6.86	86	75-125			
Molybdenum	38.5	2.0	0.20	mg/kg	50.0	0.831	75	75-125			
Nickel	56.8	2.0	0.20	mg/kg	50.0	14.4	85	75-125			
Selenium	41.3	2.0	1.0	mg/kg	50.0	ND	83	75-125			
Silver	22.2	1.0	0.80	mg/kg	25.0	ND	89	75-125			
Thallium	42.6	10	0.80	mg/kg	50.0	ND	85	75-125			
Vanadium	85.3	1.0	0.30	mg/kg	50.0	40.2	90	75-125			
Zinc	99.2	5.0	0.75	mg/kg	50.0	56.7	85	75-125			
Matrix Spike Dup Analyzed: 07/08/2009 (9G06076-MSD1)						Source: ISG0121-01					
Antimony	17.2	10	0.88	mg/kg	50.0	ND	34	75-125	25	20	M2
Arsenic	47.4	2.0	0.81	mg/kg	50.0	4.33	86	75-125	1	20	
Barium	116	1.0	0.80	mg/kg	50.0	73.7	85	75-125	2	20	
Beryllium	44.4	0.50	0.20	mg/kg	50.0	0.640	88	75-125	2	20	
Cadmium	42.7	0.50	0.20	mg/kg	50.0	ND	85	75-125	2	20	
Chromium	65.7	1.0	0.30	mg/kg	50.0	22.6	86	75-125	2	20	
Cobalt	48.1	1.0	0.30	mg/kg	50.0	7.12	82	75-125	1	20	
Copper	57.3	2.0	0.38	mg/kg	50.0	12.9	89	75-125	2	20	
Lead	49.5	2.0	0.40	mg/kg	50.0	6.86	85	75-125	1	20	
Molybdenum	39.4	2.0	0.20	mg/kg	50.0	0.831	77	75-125	2	20	
Nickel	56.1	2.0	0.20	mg/kg	50.0	14.4	84	75-125	1	20	
Selenium	39.8	2.0	1.0	mg/kg	50.0	ND	80	75-125	4	20	
Silver	21.9	1.0	0.80	mg/kg	25.0	ND	87	75-125	1	20	
Thallium	42.3	10	0.80	mg/kg	50.0	ND	85	75-125	1	20	
Vanadium	84.3	1.0	0.30	mg/kg	50.0	40.2	88	75-125	1	20	
Zinc	97.7	5.0	0.75	mg/kg	50.0	56.7	82	75-125	1	20	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

SW846 7471A

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9189358 Extracted: 07/09/09											
Matrix Spike Dup Analyzed: 07/09/2009 (D9G070280001D)						Source: ISG0121-01					
Mercury	0.419	0.033	0.0055	mg/kg	0.41	0.0066	101	87-111	1	20	
Matrix Spike Analyzed: 07/09/2009 (D9G070280001S)						Source: ISG0121-01					
Mercury	0.416	0.033	0.0055	mg/kg	0.41	0.0066	100	87-111	1	20	
Blank Analyzed: 07/09/2009 (D9G080000358B)						Source:					
Mercury	ND	0.033	0.0055	mg/kg				-			
LCS Analyzed: 07/09/2009 (D9G080000358C)						Source:					
Mercury	0.377	0.033	0.0055	mg/kg	0.417		90	87-111			

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Report Number: ISG0121

Sampled: 07/01/09
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DATA QUALIFIERS AND DEFINITIONS

- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: SW846 7471A

Samples: ISG0121-01, ISG0121-02, ISG0121-03, ISG0121-04, ISG0121-05, ISG0121-06, ISG0121-07,
ISG0121-08

TestAmerica Irvine

Joseph Doak
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IRVINE

17461 Derian Ave

Suite 100

Irvine, CA 92614

phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

J350121

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact The Boeing Company SSFL 5800 Woolsey Canyon Road Canoga Park, CA 91304 Phone		Project Manager: Tom Venable Tel/Fax: 818-466-8779 / 818-466-4873 Analysis Turnaround Time Calendar (C) or Work Days (W) <u>C</u>		Site Contact: Shelby Valenzuela Lab Contact: Joe Doak		COC No: _____ of _____ COCs	
FAX Project Name: <u>ISRA - HV Waste Characterization</u> Site: Happy Valley P O # 7KSSISRA		TAT: if different from Below <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Date: <u>7/1/09</u> Carrier: <u>Quip</u>		Job No. <u>1891041.05452</u>	
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:
<u>ISWC0033</u>	<u>S001</u>	<u>7/1/01</u>	<u>0853</u>	<u>ss.slnr</u>	<u>soil</u>	<u>1</u>	<u>HVS-2b</u>
<u>ISWC0034</u>	<u>S001</u>	"	<u>0904</u>				"
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<u>ISWC0405</u>		<u>ISWC0406</u>		<u>ISWC0407</u>		<u>ISWC0408</u>	
<u>ISWC0409</u>		<u>ISWC0410</u>		<u>ISWC0411</u>		<u>ISWC0412</u>	
<u>ISWC0413</u>		<u>ISWC0414</u>		<u>ISWC0415</u>		<u>ISWC0416</u>	
<u>ISWC0417</u>		<u>ISWC0418</u>		<u>ISWC0419</u>		<u>ISWC0420</u>	
<u>ISWC0421</u>		<u>ISWC0422</u>		<u>ISWC0423</u>		<u>ISWC0424</u>	
<u>ISWC0425</u>		<u>ISWC0426</u>		<u>ISWC0427</u>		<u>ISWC0428</u>	
<u>ISWC0429</u>		<u>ISWC0430</u>		<u>ISWC0431</u>		<u>ISWC0432</u>	
<u>ISWC0433</u>		<u>ISWC0434</u>		<u>ISWC0435</u>		<u>ISWC0436</u>	
<u>ISWC0437</u>		<u>ISWC0438</u>		<u>ISWC0439</u>		<u>ISWC0440</u>	
<u>ISWC0441</u>		<u>ISWC0442</u>		<u>ISWC0443</u>		<u>ISWC0444</u>	
<u>ISWC0445</u>		<u>ISWC0446</u>		<u>ISWC0447</u>		<u>ISWC0448</u>	
<u>ISWC0449</u>		<u>ISWC0450</u>		<u>ISWC0451</u>		<u>ISWC0452</u>	
<u>ISWC0453</u>		<u>ISWC0454</u>		<u>ISWC0455</u>		<u>ISWC0456</u>	
<u>ISWC0457</u>		<u>ISWC0458</u>		<u>ISWC0459</u>		<u>ISWC0460</u>	
<u>ISWC0461</u>		<u>ISWC0462</u>		<u>ISWC0463</u>		<u>ISWC0464</u>	
<u>ISWC0465</u>		<u>ISWC0466</u>		<u>ISWC0467</u>		<u>ISWC0468</u>	
<u>ISWC0469</u>		<u>ISWC0470</u>		<u>ISWC0471</u>		<u>ISWC0472</u>	
<u>ISWC0473</u>		<u>ISWC0474</u>		<u>ISWC0475</u>		<u>ISWC0476</u>	
<u>ISWC0477</u>		<u>ISWC0478</u>		<u>ISWC0479</u>		<u>ISWC0480</u>	
<u>ISWC0481</u>		<u>ISWC0482</u>		<u>ISWC0483</u>		<u>ISWC0484</u>	
<u>ISWC0485</u>		<u>ISWC0486</u>		<u>ISWC0487</u>		<u>ISWC0488</u>	
<u>ISWC0489</u>		<u>ISWC0490</u>		<u>ISWC0491</u>		<u>ISWC0492</u>	
<u>ISWC0493</u>		<u>ISWC0494</u>		<u>ISWC0495</u>		<u>ISWC0496</u>	
<u>ISWC0497</u>		<u>ISWC0498</u>		<u>ISWC0499</u>		<u>ISWC0500</u>	

Preservation Used: (1= Ice; 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other)

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison-B Unknown

Special Instructions/QC Requirements & Comments: Run STLC (WET) / TCLP if TTLC results ≥ 10x STLC / 20x TCLP thresholds

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Relinquished by: [Signature] Date/Time: 7/1/09 15:05
 Company: Test America

Relinquished by: [Signature] Date/Time: 7/1/09 15:05
 Company: Test America

Relinquished by: [Signature] Date/Time: 7/1/09 18:30
 Company: Test America

Relinquished by: [Signature] Date/Time: 7/1/09 18:30
 Company: Test America

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7/1/09

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9G070280

Project ISG0121

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.



DiLea Griego
Project Manager

July 14, 2009

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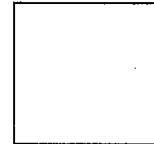
Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

(The Report Cover page is considered an integral part of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)



- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **QC Results**
- **Sample Receiving Checklist**
- **Chain of Custody**

Case Narrative

Enclosed is the report for eight samples received at the TestAmerica Laboratory in Denver on July 7, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D9G070280

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 1.2°C.

Total Metals- Method 7471A

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9G070280

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
ISG0121-01 07/01/09 08:53 001				
Mercury	0.0066 J	0.033	mg/kg	SW846 7471A
ISG0121-02 07/01/09 09:04 002				
Mercury	0.0095 J	0.033	mg/kg	SW846 7471A
ISG0121-03 07/01/09 09:22 003				
Mercury	0.0080 J	0.033	mg/kg	SW846 7471A
ISG0121-04 07/01/09 09:35 004				
Mercury	0.0080 J	0.033	mg/kg	SW846 7471A
ISG0121-05 07/01/09 09:53 005				
Mercury	0.0079 J	0.033	mg/kg	SW846 7471A
ISG0121-06 07/01/09 10:01 006				
Mercury	0.0063 J	0.033	mg/kg	SW846 7471A
ISG0121-07 07/01/09 10:16 007				
Mercury	0.021 J	0.033	mg/kg	SW846 7471A
ISG0121-08 07/01/09 10:28 008				
Mercury	0.025 J	0.033	mg/kg	SW846 7471A

METHODS SUMMARY

D9G070280

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9G070280

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 7471A	Christopher Grisdale	9582

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9G070280

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LF5X9	001	ISG0121-01	07/01/09	08:53
LF50A	002	ISG0121-02	07/01/09	09:04
LF50C	003	ISG0121-03	07/01/09	09:22
LF50D	004	ISG0121-04	07/01/09	09:35
LF50E	005	ISG0121-05	07/01/09	09:53
LF50F	006	ISG0121-06	07/01/09	10:01
LF50G	007	ISG0121-07	07/01/09	10:16
LF50H	008	ISG0121-08	07/01/09	10:28

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ISG0121-01

TOTAL Metals

Lot-Sample #...: D9G070280-001
Date Sampled...: 07/01/09 08:53

Date Received...: 07/07/09

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.0066 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X91AA
		Dilution Factor: 1		Analysis Time...: 14:07	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-02

TOTAL Metals

Lot-Sample #...: D9G070280-002
Date Sampled...: 07/01/09 09:04

Date Received...: 07/07/09

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.0095 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50A1AA
		Dilution Factor: 1		Analysis Time...: 14:24	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-03

TOTAL Metals

Lot-Sample #...: D9G070280-003

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:22 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.0080 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50C1AA
		Dilution Factor: 1		Analysis Time...: 14:27	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-04

TOTAL Metals

Lot-Sample #...: D9G070280-004

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:35 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.0080 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50D1AA
		Dilution Factor: 1		Analysis Time..: 14:29	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-05

TOTAL Metals

Lot-Sample #...: D9G070280-005

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:53 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.0079 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50E1AA
		Dilution Factor: 1		Analysis Time...: 14:31	MDL.....: 0.0055	

NOTE (S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-06

TOTAL Metals

Lot-Sample #...: D9G070280-006

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:01 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.0063 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50F1AA
		Dilution Factor: 1		Analysis Time...: 14:33	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-07

TOTAL Metals

Lot-Sample #...: D9G070280-007

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:16 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.021 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50G1AA
		Dilution Factor: 1		Analysis Time...: 14:36	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-08

TOTAL Metals

Lot-Sample #...: D9G070280-008

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:28 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.025 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50H1AA
		Dilution Factor: 1		Analysis Time...: 14:38	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

QC DATA ASSOCIATION SUMMARY

D9G070280

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 7471A		9189358	9189209
002	SOLID	SW846 7471A		9189358	9189209
003	SOLID	SW846 7471A		9189358	9189209
004	SOLID	SW846 7471A		9189358	9189209
005	SOLID	SW846 7471A		9189358	9189209
006	SOLID	SW846 7471A		9189358	9189209
007	SOLID	SW846 7471A		9189358	9189209
008	SOLID	SW846 7471A		9189358	9189209

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D9G070280

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MB Lot-Sample #: D9G080000-358		Prep Batch #...: 9189358				
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF6411AA
		Dilution Factor: 1				
		Analysis Time...: 14:02				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070280

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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LCS Lot-Sample#: D9G080000-358 Prep Batch #...: 9189358

Mercury	90	(87 - 111)	SW846 7471A	07/09/09	LF6411AC
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Dilution Factor: 1 Analysis Time..: 14:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070280

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
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LCS Lot-Sample#: D9G080000-358 Prep Batch #...: 9189358

Mercury	0.417	0.377	mg/kg	90	SW846 7471A	07/09/09	LF6411AC
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Dilution Factor: 1

Analysis Time...: 14:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070280

Matrix.....: SOLID

Date Sampled...: 07/01/09 08:53 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	<u>RPD</u> <u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
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MS Lot-Sample #: D9G070280-001 Prep Batch #...: 9189358

Mercury	100	(87 - 111)			SW846 7471A	07/09/09	LF5X91AC
	101	(87 - 111)	0.60	(0-20)	SW846 7471A	07/09/09	LF5X91AD

Dilution Factor: 1

Analysis Time...: 14:15

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070280

Matrix.....: SOLID

Date Sampled...: 07/01/09 08:53 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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MS Lot-Sample #: D9G070280-001 Prep Batch #...: 9189358

Mercury

0.0066	0.410	0.416	mg/kg	100			SW846 7471A	07/09/09	LF5X91AC
0.0066	0.410	0.419	mg/kg	101	0.60		SW846 7471A	07/09/09	LF5X91AD

Dilution Factor: 1
Analysis Time...: 14:15

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

TestAmerica Denver
Sample Receiving Checklist

Lot #: D9G070280 Date/Time Received: 7-7-09/0830

Company Name & Sampling Site: TA IRVINE - BOEING

PM to Complete This Section: Yes No
Residual chlorine check required: Quarantined:

Quote #: 72743

Special Instructions:

*PM checking Due date
w/client
Set ACR to 7/15*

Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 1.2° _____

N/A Yes No

Initials

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR. LC
- 2. Coolers scanned for radiation. Is the reading \leq to background levels? Yes: No:
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative HCl 4±2°C Sodium Thiosulfate Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver
Sample Receiving Checklist

Lot # DAG070290

Login Checks:

Initials

N/A Yes No

CSB

19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
22. Were special log in instructions read and followed?
23. Were AFCEE metals logged for refrigerated storage?
24. Were tests logged checked against the COC? Which samples were confirmed? All
25. Was a Rush form completed for quick TAT?
26. Was a Short Hold form completed for any short holds?
27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

SC

28. Was the subcontract COC signed and sent with samples to bottle prep?
29. Were sample labels double-checked by a second person?
30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
31. Did the sample ID, Date, and Time from label match what was logged?
32. Were stickers for special archiving instructions affixed to each box? See #27
33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

1.20
7709
12

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0121

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: The Boeing Company-SSFL

RECEIVING LABORATORY:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone : (303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ISG0121-01	Soil					
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 08:53	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						
Sample ID: ISG0121-02	Soil					
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 09:04	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						
Sample ID: ISG0121-03	Soil					
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 09:22	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						
Sample ID: ISG0121-04	Soil					
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 09:35	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						
Sample ID: ISG0121-05	Soil					
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 09:53	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						
Sample ID: ISG0121-06	Soil					
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 10:01	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						

Olga Onelbe
Released By

7/6/09 17:00
Date/Time

Fedex
Received By

7/6/09 17:00
Date/Time

Released By

Date/Time

Couros Qui
Received By

7-7-09/0830
Date/Time

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0121

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ISG0121-07						
	Soil					Sampled: 07/01/09 10:16
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 10:16	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0121-08						
	Soil					Sampled: 07/01/09 10:28
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 10:28	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						

LABORATORY REPORT

Prepared For: The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project: ISRA HV Waste Characterization
1891614.05452

Sampled: 07/01/09
Received: 07/01/09
Issued: 07/28/09 12:57

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

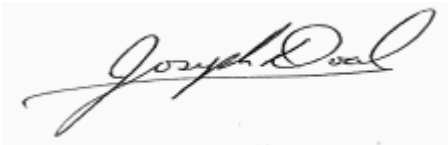
SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: This is an amended report which includes all samples for this work order.

LABORATORY ID	CLIENT ID	MATRIX
ISG0121-01	HZBS0165S001	Soil
ISG0121-02	HZBS0166S001	Soil
ISG0121-03	HZBS0167S001	Soil
ISG0121-04	HZBS0171S001	Soil
ISG0121-05	HZBS0168S001	Soil
ISG0121-06	HZBS0169S001	Soil
ISG0121-07	HZBS0170S001	Soil
ISG0121-08	HZBS0172S001	Soil

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0121-01 (HZBS0165S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	M2
Arsenic	EPA 6010B	9G06076	0.81	2.0	4.3	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	74	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.64	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	23	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	7.1	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	13	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	6.9	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.83	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	14	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	40	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	57	1	07/06/09	07/08/09	

Sample ID: ISG0121-02 (HZBS0166S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	5.2	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	79	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.68	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	23	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	7.5	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	14	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	7.4	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.99	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	15	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	1.1	1	07/06/09	07/08/09	J
Vanadium	EPA 6010B	9G06076	0.30	1.0	40	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	60	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0121-03 (HZBS0167S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	4.3	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	76	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.65	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	23	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	7.6	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	13	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	6.7	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.80	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	15	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	41	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	60	1	07/06/09	07/08/09	

Sample ID: ISG0121-04 (HZBS0171S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	4.3	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	76	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.65	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	24	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	7.6	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	13	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	6.5	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.75	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	15	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	39	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	60	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0121-05 (HZBS0168S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	4.2	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	80	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.70	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	26	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	7.9	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	14	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	8.1	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.74	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	16	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	45	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	65	1	07/06/09	07/08/09	

Sample ID: ISG0121-06 (HZBS0169S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	3.5	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	38	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.58	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	14	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	4.0	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	4.6	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	3.6	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.60	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	8.0	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	19	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	31	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0121-07 (HZBS0170S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	6.7	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	56	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.67	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	18	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	5.6	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	13	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	11	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.82	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	12	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	29	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	57	1	07/06/09	07/08/09	

Sample ID: ISG0121-08 (HZBS0172S001 - Soil)

Sampled: 07/01/09

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	5.9	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	44	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.75	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	17	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	6.3	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	8.2	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	6.7	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.63	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	9.5	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/08/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	27	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	39	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304-1148
 Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
 1891614.05452
 Report Number: ISG0121

Sampled: 07/01/09
 Received: 07/01/09

SW846 7471A

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0121-01 (HZBS0165S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.0066	1	07/09/09	07/09/09	J
Sample ID: ISG0121-02 (HZBS0166S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.0095	1	07/09/09	07/09/09	J
Sample ID: ISG0121-03 (HZBS0167S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.008	1	07/09/09	07/09/09	J
Sample ID: ISG0121-04 (HZBS0171S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.008	1	07/09/09	07/09/09	J
Sample ID: ISG0121-05 (HZBS0168S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.0079	1	07/09/09	07/09/09	J
Sample ID: ISG0121-06 (HZBS0169S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.0063	1	07/09/09	07/09/09	J
Sample ID: ISG0121-07 (HZBS0170S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.021	1	07/09/09	07/09/09	J
Sample ID: ISG0121-08 (HZBS0172S001 - Soil)					Sampled: 07/01/09				
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189358	0.0055	0.033	0.025	1	07/09/09	07/09/09	J

TestAmerica Irvine

Joseph Doak
 Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD RPD	Data Qualifiers
Batch: 9G06076 Extracted: 07/06/09										
Blank Analyzed: 07/08/2009 (9G06076-BLK1)										
Antimony	ND	10	0.88	mg/kg						
Arsenic	ND	2.0	0.81	mg/kg						
Barium	ND	1.0	0.80	mg/kg						
Beryllium	ND	0.50	0.20	mg/kg						
Cadmium	ND	0.50	0.20	mg/kg						
Chromium	ND	1.0	0.30	mg/kg						
Cobalt	ND	1.0	0.30	mg/kg						
Copper	ND	2.0	0.38	mg/kg						
Lead	ND	2.0	0.40	mg/kg						
Molybdenum	ND	2.0	0.20	mg/kg						
Nickel	ND	2.0	0.20	mg/kg						
Selenium	ND	2.0	1.0	mg/kg						
Silver	ND	1.0	0.80	mg/kg						
Thallium	ND	10	0.80	mg/kg						
Vanadium	ND	1.0	0.30	mg/kg						
Zinc	ND	5.0	0.75	mg/kg						
LCS Analyzed: 07/08/2009 (9G06076-BS1)										
Antimony	44.7	10	0.88	mg/kg	50.0		89	80-120		
Arsenic	45.0	2.0	0.81	mg/kg	50.0		90	80-120		
Barium	45.7	1.0	0.80	mg/kg	50.0		91	80-120		
Beryllium	44.3	0.50	0.20	mg/kg	50.0		89	80-120		
Cadmium	45.0	0.50	0.20	mg/kg	50.0		90	80-120		
Chromium	44.9	1.0	0.30	mg/kg	50.0		90	80-120		
Cobalt	43.7	1.0	0.30	mg/kg	50.0		87	80-120		
Copper	44.8	2.0	0.38	mg/kg	50.0		90	80-120		
Lead	45.6	2.0	0.40	mg/kg	50.0		91	80-120		
Molybdenum	42.8	2.0	0.20	mg/kg	50.0		86	80-120		
Nickel	45.4	2.0	0.20	mg/kg	50.0		91	80-120		
Selenium	42.6	2.0	1.0	mg/kg	50.0		85	80-120		
Silver	22.3	1.0	0.80	mg/kg	25.0		89	80-120		
Thallium	44.8	10	0.80	mg/kg	50.0		90	80-120		
Vanadium	44.7	1.0	0.30	mg/kg	50.0		89	80-120		
Zinc	43.8	5.0	0.75	mg/kg	50.0		88	80-120		

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9G06076 Extracted: 07/06/09											
Matrix Spike Analyzed: 07/08/2009 (9G06076-MS1)						Source: ISG0121-01					
Antimony	13.4	10	0.88	mg/kg	50.0	ND	27	75-125			M2
Arsenic	47.6	2.0	0.81	mg/kg	50.0	4.33	87	75-125			
Barium	118	1.0	0.80	mg/kg	50.0	73.7	89	75-125			
Beryllium	45.2	0.50	0.20	mg/kg	50.0	0.640	89	75-125			
Cadmium	43.6	0.50	0.20	mg/kg	50.0	ND	87	75-125			
Chromium	66.8	1.0	0.30	mg/kg	50.0	22.6	88	75-125			
Cobalt	48.6	1.0	0.30	mg/kg	50.0	7.12	83	75-125			
Copper	58.4	2.0	0.38	mg/kg	50.0	12.9	91	75-125			
Lead	50.0	2.0	0.40	mg/kg	50.0	6.86	86	75-125			
Molybdenum	38.5	2.0	0.20	mg/kg	50.0	0.831	75	75-125			
Nickel	56.8	2.0	0.20	mg/kg	50.0	14.4	85	75-125			
Selenium	41.3	2.0	1.0	mg/kg	50.0	ND	83	75-125			
Silver	22.2	1.0	0.80	mg/kg	25.0	ND	89	75-125			
Thallium	42.6	10	0.80	mg/kg	50.0	ND	85	75-125			
Vanadium	85.3	1.0	0.30	mg/kg	50.0	40.2	90	75-125			
Zinc	99.2	5.0	0.75	mg/kg	50.0	56.7	85	75-125			
Matrix Spike Dup Analyzed: 07/08/2009 (9G06076-MSD1)						Source: ISG0121-01					
Antimony	17.2	10	0.88	mg/kg	50.0	ND	34	75-125	25	20	M2
Arsenic	47.4	2.0	0.81	mg/kg	50.0	4.33	86	75-125	1	20	
Barium	116	1.0	0.80	mg/kg	50.0	73.7	85	75-125	2	20	
Beryllium	44.4	0.50	0.20	mg/kg	50.0	0.640	88	75-125	2	20	
Cadmium	42.7	0.50	0.20	mg/kg	50.0	ND	85	75-125	2	20	
Chromium	65.7	1.0	0.30	mg/kg	50.0	22.6	86	75-125	2	20	
Cobalt	48.1	1.0	0.30	mg/kg	50.0	7.12	82	75-125	1	20	
Copper	57.3	2.0	0.38	mg/kg	50.0	12.9	89	75-125	2	20	
Lead	49.5	2.0	0.40	mg/kg	50.0	6.86	85	75-125	1	20	
Molybdenum	39.4	2.0	0.20	mg/kg	50.0	0.831	77	75-125	2	20	
Nickel	56.1	2.0	0.20	mg/kg	50.0	14.4	84	75-125	1	20	
Selenium	39.8	2.0	1.0	mg/kg	50.0	ND	80	75-125	4	20	
Silver	21.9	1.0	0.80	mg/kg	25.0	ND	87	75-125	1	20	
Thallium	42.3	10	0.80	mg/kg	50.0	ND	85	75-125	1	20	
Vanadium	84.3	1.0	0.30	mg/kg	50.0	40.2	88	75-125	1	20	
Zinc	97.7	5.0	0.75	mg/kg	50.0	56.7	82	75-125	1	20	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

SW846 7471A

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9189358 Extracted: 07/09/09											
Matrix Spike Dup Analyzed: 07/09/2009 (D9G070280001D)						Source: ISG0121-01					
Mercury	0.419	0.033	0.0055	mg/kg	0.41	0.0066	101	87-111	1	20	
Matrix Spike Analyzed: 07/09/2009 (D9G070280001S)						Source: ISG0121-01					
Mercury	0.416	0.033	0.0055	mg/kg	0.41	0.0066	100	87-111	1	20	
Blank Analyzed: 07/09/2009 (D9G080000358B)						Source:					
Mercury	ND	0.033	0.0055	mg/kg				-			
LCS Analyzed: 07/09/2009 (D9G080000358C)						Source:					
Mercury	0.377	0.033	0.0055	mg/kg	0.417		90	87-111			

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

DATA QUALIFIERS AND DEFINITIONS

- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

ISG0121 <Page 10 of 11>

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0121

Sampled: 07/01/09
Received: 07/01/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: SW846 7471A

Samples: ISG0121-01, ISG0121-02, ISG0121-03, ISG0121-04, ISG0121-05, ISG0121-06, ISG0121-07,
ISG0121-08

TestAmerica Irvine

Joseph Doak
Project Manager

Chain of Custody Record

JSB0121

TestAmerica Laboratories, Inc.

Client Contact: **The Boeing Company SSFL**
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304
 Phone: _____
 FAX: _____
 Project Name: **ISRA - HV Waste Characterization**
 Site: **Happy Valley**
 PO # **7KSSISRA**

Project Manager: **Tom Venable**
 Tel/Fax: **818-466-8779 / 818-466-4873**

Analysis Turnaround Time
 Calendar (C) or Work Days (W) C
 2 weeks
 1 week
 2 days
 1 day
 TAT if different from Below _____

Site Contact: **Shelby Valenzuela**
 Lab Contact: **Joe Doak**

COC No: _____ of _____ COCs
 Job No. 1891041.05452
 SDG No. _____

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Entered Sample	Sample Specific Notes
ISWC0033	7/1/01	0853	ss. shale soil		1	X	HVS-2b
ISWC0034	"	0904	"		1	X	"
ISWC0035	"	0922	"		1	X	"
ISWC0036	"	0935	"		1	X	"
ISWC0037	"	0953	"		1	X	"
ISWC0038	"	1001	"		1	X	"
ISWC0039	"	1016	"		1	X	"
ISWC0040	"	1028	"		1	X	"
<p>Preservation Used: (1= Ice; 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other)</p> <p>Possible Hazard Identification: <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison-B <input type="checkbox"/> Unknown</p> <p>Special Instructions/QC Requirements & Comments: Run STLC (WET) / TCLP if TTLC results ≥ 10x STLC / 20x TCLP thresholds</p>							

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Relinquished by: *[Signature]* Date/Time: 7/1/01 15:05
 Relinquished by: *[Signature]* Date/Time: 7/1/01 15:05
 Relinquished by: *[Signature]* Date/Time: 7/1/01 15:05

Received by: *[Signature]* Date/Time: 7/1/01 15:05
 Received by: *[Signature]* Date/Time: 7/1/01 15:05
 Received by: *[Signature]* Date/Time: 7/1/01 15:05

Company: *[Signature]* Company: Test America
 Company: Test America Company: ZAI
 Company: Company:

277

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9G070280

Project ISG0121

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.



DiLea Griego
Project Manager

July 14, 2009

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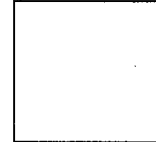
Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

(The Report Cover page is considered an integral part of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)



- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **QC Results**
- **Sample Receiving Checklist**
- **Chain of Custody**

Case Narrative

Enclosed is the report for eight samples received at the TestAmerica Laboratory in Denver on July 7, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D9G070280

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 1.2°C.

Total Metals- Method 7471A

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9G070280

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
ISG0121-01 07/01/09 08:53 001				
Mercury	0.0066 J	0.033	mg/kg	SW846 7471A
ISG0121-02 07/01/09 09:04 002				
Mercury	0.0095 J	0.033	mg/kg	SW846 7471A
ISG0121-03 07/01/09 09:22 003				
Mercury	0.0080 J	0.033	mg/kg	SW846 7471A
ISG0121-04 07/01/09 09:35 004				
Mercury	0.0080 J	0.033	mg/kg	SW846 7471A
ISG0121-05 07/01/09 09:53 005				
Mercury	0.0079 J	0.033	mg/kg	SW846 7471A
ISG0121-06 07/01/09 10:01 006				
Mercury	0.0063 J	0.033	mg/kg	SW846 7471A
ISG0121-07 07/01/09 10:16 007				
Mercury	0.021 J	0.033	mg/kg	SW846 7471A
ISG0121-08 07/01/09 10:28 008				
Mercury	0.025 J	0.033	mg/kg	SW846 7471A

METHODS SUMMARY

D9G070280

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9G070280

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 7471A	Christopher Grisdale	9582

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9G070280

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LF5X9	001	ISG0121-01	07/01/09	08:53
LF50A	002	ISG0121-02	07/01/09	09:04
LF50C	003	ISG0121-03	07/01/09	09:22
LF50D	004	ISG0121-04	07/01/09	09:35
LF50E	005	ISG0121-05	07/01/09	09:53
LF50F	006	ISG0121-06	07/01/09	10:01
LF50G	007	ISG0121-07	07/01/09	10:16
LF50H	008	ISG0121-08	07/01/09	10:28

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ISG0121-01

TOTAL Metals

Lot-Sample #...: D9G070280-001

Matrix.....: SOLID

Date Sampled...: 07/01/09 08:53 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.0066 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5X91AA
		Dilution Factor: 1		Analysis Time...: 14:07	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-02

TOTAL Metals

Lot-Sample #...: D9G070280-002
Date Sampled...: 07/01/09 09:04

Date Received...: 07/07/09

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.0095 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50A1AA
		Dilution Factor: 1		Analysis Time...: 14:24	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-03

TOTAL Metals

Lot-Sample #...: D9G070280-003

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:22 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.0080 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50C1AA
		Dilution Factor: 1		Analysis Time...: 14:27	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-04

TOTAL Metals

Lot-Sample #...: D9G070280-004

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:35 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.0080 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50D1AA
		Dilution Factor: 1		Analysis Time..: 14:29	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-05

TOTAL Metals

Lot-Sample #...: D9G070280-005

Matrix.....: SOLID

Date Sampled...: 07/01/09 09:53 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.0079 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50E1AA
		Dilution Factor: 1		Analysis Time...: 14:31	MDL.....: 0.0055	

NOTE (S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-06

TOTAL Metals

Lot-Sample #...: D9G070280-006

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:01 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.0063 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50F1AA
		Dilution Factor: 1		Analysis Time...: 14:33	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-07

TOTAL Metals

Lot-Sample #...: D9G070280-007

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:16 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.021 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50G1AA
		Dilution Factor: 1		Analysis Time...: 14:36	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0121-08

TOTAL Metals

Lot-Sample #...: D9G070280-008

Matrix.....: SOLID

Date Sampled...: 07/01/09 10:28 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189358						
Mercury	0.025 J	0.033	mg/kg	SW846 7471A	07/09/09	LF50H1AA
		Dilution Factor: 1		Analysis Time...: 14:38	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

QC DATA ASSOCIATION SUMMARY

D9G070280

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 7471A		9189358	9189209
002	SOLID	SW846 7471A		9189358	9189209
003	SOLID	SW846 7471A		9189358	9189209
004	SOLID	SW846 7471A		9189358	9189209
005	SOLID	SW846 7471A		9189358	9189209
006	SOLID	SW846 7471A		9189358	9189209
007	SOLID	SW846 7471A		9189358	9189209
008	SOLID	SW846 7471A		9189358	9189209

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D9G070280

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MB Lot-Sample #: D9G080000-358		Prep Batch #...: 9189358				
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF6411AA
		Dilution Factor: 1				
		Analysis Time...: 14:02				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070280

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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LCS Lot-Sample#: D9G080000-358 Prep Batch #...: 9189358

Mercury	90	(87 - 111)	SW846 7471A	07/09/09	LF6411AC
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Dilution Factor: 1 Analysis Time..: 14:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070280

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
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LCS Lot-Sample#: D9G080000-358 Prep Batch #...: 9189358

Mercury	0.417	0.377	mg/kg	90	SW846 7471A	07/09/09	LF6411AC
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Dilution Factor: 1

Analysis Time...: 14:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070280

Matrix.....: SOLID

Date Sampled...: 07/01/09 08:53 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	<u>RPD</u> <u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
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MS Lot-Sample #: D9G070280-001 Prep Batch #...: 9189358

Mercury	100	(87 - 111)			SW846 7471A	07/09/09	LF5X91AC
	101	(87 - 111)	0.60	(0-20)	SW846 7471A	07/09/09	LF5X91AD

Dilution Factor: 1

Analysis Time...: 14:15

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070280

Matrix.....: SOLID

Date Sampled...: 07/01/09 08:53 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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MS Lot-Sample #: D9G070280-001 Prep Batch #...: 9189358

Mercury

0.0066	0.410	0.416	mg/kg	100			SW846 7471A	07/09/09	LF5X91AC
0.0066	0.410	0.419	mg/kg	101	0.60		SW846 7471A	07/09/09	LF5X91AD

Dilution Factor: 1
Analysis Time...: 14:15

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

TestAmerica Denver
Sample Receiving Checklist

Lot #: D9G070280 Date/Time Received: 7-7-09/0830

Company Name & Sampling Site: TA IRVINE - BOEING

PM to Complete This Section: *Yes* *No*
 Residual chlorine check required: Quarantined:

Quote #: 72743

Special Instructions:
*PM checking Due date
 w/client
 Set ACR to 7/15*

Time Zone:
 EDT/EST CDT/CST MDT/MST PDT/PST OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 1.2° _____

N/A Yes No

Initials

- | | | | | |
|-------------------------------------|-------------------------------------|--------------------------|---|-----------|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR. | <u>YC</u> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Chain of custody present? If no, document on CUR. | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Bottles broken and/or are leaking? If yes, document on CUR. | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 5. Multiphasic samples obvious? If yes, document on CUR. | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR. | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. pH of all samples checked and meet requirements? If no, document on CUR. | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding. | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR. | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. Were VOA samples without headspace? If no, document on CUR. | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 11. Were VOA vials preserved? Preservative <input type="checkbox"/> HCl <input type="checkbox"/> 4±2°C <input type="checkbox"/> Sodium Thiosulfate <input type="checkbox"/> Ascorbic Acid | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 12. Did samples require preservation with sodium thiosulfate? | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR. | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR. | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding. | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM. | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 17. Are analyses with short holding times requested? | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 18. Was a quick Turn Around (TAT) requested? | |

TestAmerica Denver
Sample Receiving Checklist

Lot # DAG070290

Login Checks:

Initials

N/A Yes No

CSB

19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
22. Were special log in instructions read and followed?
23. Were AFCEE metals logged for refrigerated storage?
24. Were tests logged checked against the COC? Which samples were confirmed? All
25. Was a Rush form completed for quick TAT?
26. Was a Short Hold form completed for any short holds?
27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

SC

28. Was the subcontract COC signed and sent with samples to bottle prep?
29. Were sample labels double-checked by a second person?
30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
31. Did the sample ID, Date, and Time from label match what was logged?
32. Were stickers for special archiving instructions affixed to each box? See #27
33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

1.20
7709
12

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0121

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: The Boeing Company-SSFL

RECEIVING LABORATORY:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone : (303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ISG0121-01	Soil					
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 08:53	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						
Sample ID: ISG0121-02	Soil					
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 09:04	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						
Sample ID: ISG0121-03	Soil					
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 09:22	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						
Sample ID: ISG0121-04	Soil					
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 09:35	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						
Sample ID: ISG0121-05	Soil					
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 09:53	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						
Sample ID: ISG0121-06	Soil					
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 10:01	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						

Olga Onelov
Released By

7/6/09 17:00
Date/Time

Fedex
Received By

7/6/09 17:00
Date/Time

Released By

Date/Time

Couros Qui
Received By

7-7-09/0830
Date/Time

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0121

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ISG0121-07						
	Soil					Sampled: 07/01/09 10:16
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 10:16	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0121-08						
	Soil					Sampled: 07/01/09 10:28
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 10:28	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						

LABORATORY REPORT

Prepared For: The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project: ISRA HV Waste Characterization
1891614.05452

Sampled: 07/01/09
Received: 07/01/09
Issued: 07/15/09 14:25

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

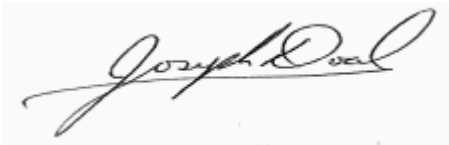
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
ISG0122-01	ISWC0042 S001	Soil
ISG0122-02	ISWC0041 S001	Soil
ISG0122-03	ISWC0043 S001	Soil
ISG0122-04	ISWC0044 S001	Soil

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0122-01 (ISWC0042 S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	4.4	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	56	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.52	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	16	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	5.5	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	8.3	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	3.9	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.56	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	12	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	1.3	1	07/06/09	07/08/09	J
Vanadium	EPA 6010B	9G06076	0.30	1.0	29	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	40	1	07/06/09	07/08/09	

Sample ID: ISG0122-02 (ISWC0041 S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	4.4	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	77	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.50	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	16	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	6.0	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	16	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	3.8	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.86	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	12	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	1.1	1	07/06/09	07/08/09	J
Vanadium	EPA 6010B	9G06076	0.30	1.0	29	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	42	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0122-03 (ISWC0043 S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	5.8	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	53	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.49	1	07/06/09	07/08/09	J
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	17	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	4.8	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	9.7	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	3.6	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.73	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	13	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	0.95	1	07/06/09	07/08/09	J
Vanadium	EPA 6010B	9G06076	0.30	1.0	27	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	44	1	07/06/09	07/08/09	

Sample ID: ISG0122-04 (ISWC0044 S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	4.9	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	49	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.51	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	16	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	5.0	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	7.8	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	3.9	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.60	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	12	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	1.1	1	07/06/09	07/08/09	J
Vanadium	EPA 6010B	9G06076	0.30	1.0	27	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	39	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304-1148
 Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
 1891614.05452
 Report Number: ISG0122

Sampled: 07/01/09
 Received: 07/01/09

SW846 7471A

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0122-01 (ISWC0042 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.01	1	07/09/09	07/09/09	J
Sample ID: ISG0122-02 (ISWC0041 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.0088	1	07/09/09	07/09/09	J
Sample ID: ISG0122-03 (ISWC0043 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	ND	1	07/09/09	07/09/09	
Sample ID: ISG0122-04 (ISWC0044 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.012	1	07/09/09	07/09/09	J

TestAmerica Irvine

Joseph Doak
 Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0122-01 (ISWC0042 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.4	5.0	500	5.0
Barium	mg/kg	56	100	10000	100
Beryllium	mg/kg	0.52	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	16	5.0	2500	5.0
Cobalt	mg/kg	5.5	80	8000	
Copper	mg/kg	8.3	25	2500	
Lead	mg/kg	3.9	5.0	1000	5.0
Molybdenum	mg/kg	0.56	350	3500	
Nickel	mg/kg	12	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	1.3	7.0	700	
Vanadium	mg/kg	29	24	2400	
Zinc	mg/kg	40	250	5000	
ISG0122-02 (ISWC0041 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.4	5.0	500	5.0
Barium	mg/kg	77	100	10000	100
Beryllium	mg/kg	0.50	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	16	5.0	2500	5.0
Cobalt	mg/kg	6.0	80	8000	
Copper	mg/kg	16	25	2500	
Lead	mg/kg	3.8	5.0	1000	5.0
Molybdenum	mg/kg	0.86	350	3500	
Nickel	mg/kg	12	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	1.1	7.0	700	
Vanadium	mg/kg	29	24	2400	
Zinc	mg/kg	42	250	5000	

TestAmerica Irvine

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1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0122-03 (ISWC0043 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	5.8	5.0	500	5.0
Barium	mg/kg	53	100	10000	100
Beryllium	mg/kg	0.49	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	17	5.0	2500	5.0
Cobalt	mg/kg	4.8	80	8000	
Copper	mg/kg	9.7	25	2500	
Lead	mg/kg	3.6	5.0	1000	5.0
Molybdenum	mg/kg	0.73	350	3500	
Nickel	mg/kg	13	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	0.95	7.0	700	
Vanadium	mg/kg	27	24	2400	
Zinc	mg/kg	44	250	5000	
ISG0122-04 (ISWC0044 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.9	5.0	500	5.0
Barium	mg/kg	49	100	10000	100
Beryllium	mg/kg	0.51	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	16	5.0	2500	5.0
Cobalt	mg/kg	5.0	80	8000	
Copper	mg/kg	7.8	25	2500	
Lead	mg/kg	3.9	5.0	1000	5.0
Molybdenum	mg/kg	0.60	350	3500	
Nickel	mg/kg	12	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	1.1	7.0	700	
Vanadium	mg/kg	27	24	2400	
Zinc	mg/kg	39	250	5000	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
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Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: 9G06076 Extracted: 07/06/09											
Blank Analyzed: 07/08/2009 (9G06076-BLK1)											
Antimony	ND	10	0.88	mg/kg							
Arsenic	ND	2.0	0.81	mg/kg							
Barium	ND	1.0	0.80	mg/kg							
Beryllium	ND	0.50	0.20	mg/kg							
Cadmium	ND	0.50	0.20	mg/kg							
Chromium	ND	1.0	0.30	mg/kg							
Cobalt	ND	1.0	0.30	mg/kg							
Copper	ND	2.0	0.38	mg/kg							
Lead	ND	2.0	0.40	mg/kg							
Molybdenum	ND	2.0	0.20	mg/kg							
Nickel	ND	2.0	0.20	mg/kg							
Selenium	ND	2.0	1.0	mg/kg							
Silver	ND	1.0	0.80	mg/kg							
Thallium	ND	10	0.80	mg/kg							
Vanadium	ND	1.0	0.30	mg/kg							
Zinc	ND	5.0	0.75	mg/kg							
LCS Analyzed: 07/08/2009 (9G06076-BS1)											
Antimony	44.7	10	0.88	mg/kg	50.0		89	80-120			
Arsenic	45.0	2.0	0.81	mg/kg	50.0		90	80-120			
Barium	45.7	1.0	0.80	mg/kg	50.0		91	80-120			
Beryllium	44.3	0.50	0.20	mg/kg	50.0		89	80-120			
Cadmium	45.0	0.50	0.20	mg/kg	50.0		90	80-120			
Chromium	44.9	1.0	0.30	mg/kg	50.0		90	80-120			
Cobalt	43.7	1.0	0.30	mg/kg	50.0		87	80-120			
Copper	44.8	2.0	0.38	mg/kg	50.0		90	80-120			
Lead	45.6	2.0	0.40	mg/kg	50.0		91	80-120			
Molybdenum	42.8	2.0	0.20	mg/kg	50.0		86	80-120			
Nickel	45.4	2.0	0.20	mg/kg	50.0		91	80-120			
Selenium	42.6	2.0	1.0	mg/kg	50.0		85	80-120			
Silver	22.3	1.0	0.80	mg/kg	25.0		89	80-120			
Thallium	44.8	10	0.80	mg/kg	50.0		90	80-120			
Vanadium	44.7	1.0	0.30	mg/kg	50.0		89	80-120			
Zinc	43.8	5.0	0.75	mg/kg	50.0		88	80-120			

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9G06076 Extracted: 07/06/09											
Matrix Spike Analyzed: 07/08/2009 (9G06076-MS1)						Source: ISG0121-01					
Antimony	13.4	10	0.88	mg/kg	50.0	ND	27	75-125			M2
Arsenic	47.6	2.0	0.81	mg/kg	50.0	4.33	87	75-125			
Barium	118	1.0	0.80	mg/kg	50.0	73.7	89	75-125			
Beryllium	45.2	0.50	0.20	mg/kg	50.0	0.640	89	75-125			
Cadmium	43.6	0.50	0.20	mg/kg	50.0	ND	87	75-125			
Chromium	66.8	1.0	0.30	mg/kg	50.0	22.6	88	75-125			
Cobalt	48.6	1.0	0.30	mg/kg	50.0	7.12	83	75-125			
Copper	58.4	2.0	0.38	mg/kg	50.0	12.9	91	75-125			
Lead	50.0	2.0	0.40	mg/kg	50.0	6.86	86	75-125			
Molybdenum	38.5	2.0	0.20	mg/kg	50.0	0.831	75	75-125			
Nickel	56.8	2.0	0.20	mg/kg	50.0	14.4	85	75-125			
Selenium	41.3	2.0	1.0	mg/kg	50.0	ND	83	75-125			
Silver	22.2	1.0	0.80	mg/kg	25.0	ND	89	75-125			
Thallium	42.6	10	0.80	mg/kg	50.0	ND	85	75-125			
Vanadium	85.3	1.0	0.30	mg/kg	50.0	40.2	90	75-125			
Zinc	99.2	5.0	0.75	mg/kg	50.0	56.7	85	75-125			
Matrix Spike Dup Analyzed: 07/08/2009 (9G06076-MSD1)						Source: ISG0121-01					
Antimony	17.2	10	0.88	mg/kg	50.0	ND	34	75-125	25	20	M2
Arsenic	47.4	2.0	0.81	mg/kg	50.0	4.33	86	75-125	1	20	
Barium	116	1.0	0.80	mg/kg	50.0	73.7	85	75-125	2	20	
Beryllium	44.4	0.50	0.20	mg/kg	50.0	0.640	88	75-125	2	20	
Cadmium	42.7	0.50	0.20	mg/kg	50.0	ND	85	75-125	2	20	
Chromium	65.7	1.0	0.30	mg/kg	50.0	22.6	86	75-125	2	20	
Cobalt	48.1	1.0	0.30	mg/kg	50.0	7.12	82	75-125	1	20	
Copper	57.3	2.0	0.38	mg/kg	50.0	12.9	89	75-125	2	20	
Lead	49.5	2.0	0.40	mg/kg	50.0	6.86	85	75-125	1	20	
Molybdenum	39.4	2.0	0.20	mg/kg	50.0	0.831	77	75-125	2	20	
Nickel	56.1	2.0	0.20	mg/kg	50.0	14.4	84	75-125	1	20	
Selenium	39.8	2.0	1.0	mg/kg	50.0	ND	80	75-125	4	20	
Silver	21.9	1.0	0.80	mg/kg	25.0	ND	87	75-125	1	20	
Thallium	42.3	10	0.80	mg/kg	50.0	ND	85	75-125	1	20	
Vanadium	84.3	1.0	0.30	mg/kg	50.0	40.2	88	75-125	1	20	
Zinc	97.7	5.0	0.75	mg/kg	50.0	56.7	82	75-125	1	20	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

SW846 7471A

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9189354 Extracted: 07/09/09											
Matrix Spike Dup Analyzed: 07/09/2009 (D9G070271001D)						Source: D9G070271001					
Mercury	0.386	0.033	0.0055	mg/kg	0.417	0.016	89	87-111	4	20	
Matrix Spike Analyzed: 07/09/2009 (D9G070271001S)						Source: D9G070271001					
Mercury	0.37	0.033	0.0055	mg/kg	0.417	0.016	85	87-111	4	20	N
Blank Analyzed: 07/09/2009 (D9G080000354B)						Source:					
Mercury	ND	0.033	0.0055	mg/kg				-			
LCS Analyzed: 07/09/2009 (D9G080000354C)						Source:					
Mercury	0.368	0.033	0.0055	mg/kg	0.417		88	87-111			

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

DATA QUALIFIERS AND DEFINITIONS

- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- N** Spike sample recovery is outside control limits.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

ISG0122 <Page 10 of 11>

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: SW846 7471A

Samples: ISG0122-01, ISG0122-02, ISG0122-03, ISG0122-04

TestAmerica Irvine

Joseph Doak
Project Manager

IRVINE

17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ISG0122

TestAmerica Laboratories, Inc.

Client Contact
The Boeing Company SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304

Project Manager: Tom Venable
Tel/Fax: 818-466-8779 / 818-466-4873

Site Contact: Shelby Valenzuela
Lab Contact: Joe Donk

Date: 7/1/04
Carrier: *Boeing*

COC No: _____ of _____ COCs

Analysis Turnaround Time
Calendar (C) or Work Days (W) W

TAT if different from Below

2 weeks
 1 week
 2 days
 1 day

Job No. 1891414.05452
SDG No.

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:
ISCW0042 Soil	7/1/04	1111	ss. sleeve	soil	1	CYN-1
ISCW0041 Soil	"	1123	↓	↓	1	"
ISCW0043 Soil	"	1134	↓	↓	1	"
ISCW0044 Soil	"	1143	↓	↓	1	"
ISG0122						

Preservation Used: Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison-B Unknown Other

Special Instructions/QC Requirements & Comments: Run STLC (WET) / TCLP if TTLC results ≥ 10x STLC / 20x TCLP thresholds

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Retinquired by: *[Signature]* Date/Time: 7/1/04 15:05
 Company: *MWH*

Relinquished by: *[Signature]* Date/Time: 7/1/04 18:30
 Company: *TestAmerica*

Relinquished by: *[Signature]* Date/Time: 7/1/04 18:30
 Company: *TestAmerica*



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9G070272

Project ISG0122

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.

Dee Kettula
for DiLea Griego
Project Manager

July 14, 2009

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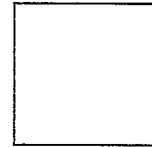
Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

(The Report Cover page is considered an integral part of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)



- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **QC Results**
- **Sample Receiving Checklist**
- **Chain of Custody**

Case Narrative

Enclosed is the report for four samples received at the TestAmerica Laboratory in Denver on July 7, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

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Quality Control Summary for Lot D9G070272

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 1.2°C.

Total Metals – Method 7471A

The Mercury MS/MSD performed on sample from another lot in QC batch 9189354 exhibited a percent recovery outside the QC control limits. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9G070272

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
ISG0122-01 07/01/09 11:11 001				
Mercury	0.010 J	0.033	mg/kg	SW846 7471A
ISG0122-02 07/01/09 11:23 002				
Mercury	0.0088 J	0.033	mg/kg	SW846 7471A
ISG0122-04 07/01/09 11:43 004				
Mercury	0.012 J	0.033	mg/kg	SW846 7471A

METHODS SUMMARY

D9G070272

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9G070272

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 7471A	Christopher Grisdale	9582

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9G070272

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LF5WW	001	ISG0122-01	07/01/09	11:11
LF5W0	002	ISG0122-02	07/01/09	11:23
LF5W1	003	ISG0122-03	07/01/09	11:34
LF5W2	004	ISG0122-04	07/01/09	11:43

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ISG0122-01

TOTAL Metals

Lot-Sample #...: D9G070272-001

Matrix.....: SOLID

Date Sampled...: 07/01/09 11:11 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.010 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5WW1AA
		Dilution Factor: 1		Analysis Time...: 12:39	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0122-02

TOTAL Metals

Lot-Sample #...: D9G070272-002

Matrix.....: SOLID

Date Sampled...: 07/01/09 11:23 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.0088 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W01AA
		Dilution Factor: 1		Analysis Time...: 12:41	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0122-03

TOTAL Metals

Lot-Sample #...: D9G070272-003

Matrix.....: SOLID

Date Sampled...: 07/01/09 11:34 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF5W11AA
		Dilution Factor: 1		Analysis Time...: 12:44	MDL.....: 0.0055	

TestAmerica Irvine

Client Sample ID: ISG0122-04

TOTAL Metals

Lot-Sample #...: D9G070272-004

Matrix.....: SOLID

Date Sampled...: 07/01/09 11:43 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.012 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W21AA
		Dilution Factor: 1		Analysis Time...: 12:46	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

QC DATA ASSOCIATION SUMMARY

D9G070272

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 7471A		9189354	9189205
002	SOLID	SW846 7471A		9189354	9189205
003	SOLID	SW846 7471A		9189354	9189205
004	SOLID	SW846 7471A		9189354	9189205

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D9G070272

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MB Lot-Sample #: D9G080000-354		Prep Batch #...: 9189354				
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF64D1AA
		Dilution Factor: 1				
		Analysis Time...: 12:02				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070272

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#:	D9G080000-354	Prep Batch #...:	9189354		
Mercury	88	(87 - 111)	SW846 7471A	07/09/09	LF64D1AC
		Dilution Factor: 1		Analysis Time...: 12:04	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070272

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
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LCS Lot-Sample#: D9G080000-354 Prep Batch #...: 9189354

Mercury	0.417	0.368	mg/kg	88	SW846 7471A	07/09/09	LF64D1AC
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Dilution Factor: 1 Analysis Time...: 12:04

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070272

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:10 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MS Lot-Sample #: D9G070271-001 Prep Batch #...: 9189354							
Mercury	85 N	(87 - 111)			SW846 7471A	07/09/09	LF5WP1AC
	89	(87 - 111)	4.1	(0-20)	SW846 7471A	07/09/09	LF5WP1AD
			Dilution Factor: 1				
			Analysis Time...: 12:09				

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070272

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:10 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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MS Lot-Sample #: D9G070271-001 Prep Batch #...: 9189354

Mercury

0.016	0.417	0.370	N mg/kg	85			SW846 7471A	07/09/09	LF5WP1AC
0.016	0.417	0.386	mg/kg	89	4.1		SW846 7471A	07/09/09	LF5WP1AD

Dilution Factor: 1

Analysis Time...: 12:09

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

TestAmerica Denver
Sample Receiving Checklist

Lot #: D9G070272 Date/Time Received: 7-7-09/0830

Company Name & Sampling Site: TA IRVINE - BOEING

PM to Complete This Section: Yes No Quarantined: Yes No

Quote #: 72743

Special Instructions:

Set A & R to 7/15

Time Zone: EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 1.2 _____

N/A Yes No

Initials

LC

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading \leq to background levels? Yes: No:
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative HCl 4±2°C Sodium Thiosulfate Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver
Sample Receiving Checklist

Lot # D96070272

Login Checks:

Initials
CR

N/A Yes No

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? AM
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials
AC

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

1.2
JK
7-7-09
C1

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0122

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: The Boeing Company-SSFL

RECEIVING LABORATORY:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone : (303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab	Price Surch	Comments
Sample ID: ISG0122-01	Soil					Sampled: 07/01/09 11:11
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 11:11	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0122-02	Soil					Sampled: 07/01/09 11:23
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 11:23	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0122-03	Soil					Sampled: 07/01/09 11:34
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 11:34	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						
Sample ID: ISG0122-04	Soil					Sampled: 07/01/09 11:43
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 11:43	\$35.00	0%	J Flags/Boeing/sub to denver
<i>Containers Supplied:</i> 4 oz Jar (B)						

Olga Ornelas 7/6/09 17:00
Released By Date/Time

Released By
TestAmerica Denver

Feder 7/6/09 17:00
Received By Date/Time

Cosimo Qui 7-7-09 0830
Received By Date/Time

LABORATORY REPORT

Prepared For: The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project: ISRA HV Waste Characterization
1891614.05452

Sampled: 07/01/09
Received: 07/01/09
Issued: 08/17/09 12:10

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

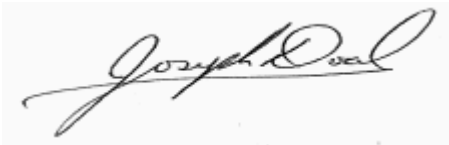
SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: This is an amended report to change the sample descriptions for sample ISG0122-03 and ISG0122-04 and to provide report for level 4 data on the same two samples.

LABORATORY ID	CLIENT ID	MATRIX
ISG0122-03	CNBS0135S001	Soil
ISG0122-04	CNBS0136S001	Soil

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0122-03 (CNBS0135S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	5.8	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	53	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.49	1	07/06/09	07/08/09	J
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	17	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	4.8	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	9.7	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	3.6	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.73	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	13	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	0.95	1	07/06/09	07/08/09	J
Vanadium	EPA 6010B	9G06076	0.30	1.0	27	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	44	1	07/06/09	07/08/09	

Sample ID: ISG0122-04 (CNBS0136S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	4.9	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	49	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.51	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	16	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	5.0	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	7.8	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	3.9	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.60	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	12	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	1.1	1	07/06/09	07/08/09	J
Vanadium	EPA 6010B	9G06076	0.30	1.0	27	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	39	1	07/06/09	07/08/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304-1148
 Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
 1891614.05452
 Report Number: ISG0122

Sampled: 07/01/09
 Received: 07/01/09

SW846 7471A

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0122-03 (CNBS0135S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	ND	1	07/09/09	07/09/09	
Sample ID: ISG0122-04 (CNBS0136S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.012	1	07/09/09	07/09/09	J

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD RPD	Data Qualifiers
Batch: 9G06076 Extracted: 07/06/09										
Blank Analyzed: 07/08/2009 (9G06076-BLK1)										
Antimony	ND	10	0.88	mg/kg						
Arsenic	ND	2.0	0.81	mg/kg						
Barium	ND	1.0	0.80	mg/kg						
Beryllium	ND	0.50	0.20	mg/kg						
Cadmium	ND	0.50	0.20	mg/kg						
Chromium	ND	1.0	0.30	mg/kg						
Cobalt	ND	1.0	0.30	mg/kg						
Copper	ND	2.0	0.38	mg/kg						
Lead	ND	2.0	0.40	mg/kg						
Molybdenum	ND	2.0	0.20	mg/kg						
Nickel	ND	2.0	0.20	mg/kg						
Selenium	ND	2.0	1.0	mg/kg						
Silver	ND	1.0	0.80	mg/kg						
Thallium	ND	10	0.80	mg/kg						
Vanadium	ND	1.0	0.30	mg/kg						
Zinc	ND	5.0	0.75	mg/kg						
LCS Analyzed: 07/08/2009 (9G06076-BS1)										
Antimony	44.7	10	0.88	mg/kg	50.0		89	80-120		
Arsenic	45.0	2.0	0.81	mg/kg	50.0		90	80-120		
Barium	45.7	1.0	0.80	mg/kg	50.0		91	80-120		
Beryllium	44.3	0.50	0.20	mg/kg	50.0		89	80-120		
Cadmium	45.0	0.50	0.20	mg/kg	50.0		90	80-120		
Chromium	44.9	1.0	0.30	mg/kg	50.0		90	80-120		
Cobalt	43.7	1.0	0.30	mg/kg	50.0		87	80-120		
Copper	44.8	2.0	0.38	mg/kg	50.0		90	80-120		
Lead	45.6	2.0	0.40	mg/kg	50.0		91	80-120		
Molybdenum	42.8	2.0	0.20	mg/kg	50.0		86	80-120		
Nickel	45.4	2.0	0.20	mg/kg	50.0		91	80-120		
Selenium	42.6	2.0	1.0	mg/kg	50.0		85	80-120		
Silver	22.3	1.0	0.80	mg/kg	25.0		89	80-120		
Thallium	44.8	10	0.80	mg/kg	50.0		90	80-120		
Vanadium	44.7	1.0	0.30	mg/kg	50.0		89	80-120		
Zinc	43.8	5.0	0.75	mg/kg	50.0		88	80-120		

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9G06076 Extracted: 07/06/09											
Matrix Spike Analyzed: 07/08/2009 (9G06076-MS1)						Source: ISG0121-01					
Antimony	13.4	10	0.88	mg/kg	50.0	ND	27	75-125			M2
Arsenic	47.6	2.0	0.81	mg/kg	50.0	4.33	87	75-125			
Barium	118	1.0	0.80	mg/kg	50.0	73.7	89	75-125			
Beryllium	45.2	0.50	0.20	mg/kg	50.0	0.640	89	75-125			
Cadmium	43.6	0.50	0.20	mg/kg	50.0	ND	87	75-125			
Chromium	66.8	1.0	0.30	mg/kg	50.0	22.6	88	75-125			
Cobalt	48.6	1.0	0.30	mg/kg	50.0	7.12	83	75-125			
Copper	58.4	2.0	0.38	mg/kg	50.0	12.9	91	75-125			
Lead	50.0	2.0	0.40	mg/kg	50.0	6.86	86	75-125			
Molybdenum	38.5	2.0	0.20	mg/kg	50.0	0.831	75	75-125			
Nickel	56.8	2.0	0.20	mg/kg	50.0	14.4	85	75-125			
Selenium	41.3	2.0	1.0	mg/kg	50.0	ND	83	75-125			
Silver	22.2	1.0	0.80	mg/kg	25.0	ND	89	75-125			
Thallium	42.6	10	0.80	mg/kg	50.0	ND	85	75-125			
Vanadium	85.3	1.0	0.30	mg/kg	50.0	40.2	90	75-125			
Zinc	99.2	5.0	0.75	mg/kg	50.0	56.7	85	75-125			
Matrix Spike Dup Analyzed: 07/08/2009 (9G06076-MSD1)						Source: ISG0121-01					
Antimony	17.2	10	0.88	mg/kg	50.0	ND	34	75-125	25	20	M2
Arsenic	47.4	2.0	0.81	mg/kg	50.0	4.33	86	75-125	1	20	
Barium	116	1.0	0.80	mg/kg	50.0	73.7	85	75-125	2	20	
Beryllium	44.4	0.50	0.20	mg/kg	50.0	0.640	88	75-125	2	20	
Cadmium	42.7	0.50	0.20	mg/kg	50.0	ND	85	75-125	2	20	
Chromium	65.7	1.0	0.30	mg/kg	50.0	22.6	86	75-125	2	20	
Cobalt	48.1	1.0	0.30	mg/kg	50.0	7.12	82	75-125	1	20	
Copper	57.3	2.0	0.38	mg/kg	50.0	12.9	89	75-125	2	20	
Lead	49.5	2.0	0.40	mg/kg	50.0	6.86	85	75-125	1	20	
Molybdenum	39.4	2.0	0.20	mg/kg	50.0	0.831	77	75-125	2	20	
Nickel	56.1	2.0	0.20	mg/kg	50.0	14.4	84	75-125	1	20	
Selenium	39.8	2.0	1.0	mg/kg	50.0	ND	80	75-125	4	20	
Silver	21.9	1.0	0.80	mg/kg	25.0	ND	87	75-125	1	20	
Thallium	42.3	10	0.80	mg/kg	50.0	ND	85	75-125	1	20	
Vanadium	84.3	1.0	0.30	mg/kg	50.0	40.2	88	75-125	1	20	
Zinc	97.7	5.0	0.75	mg/kg	50.0	56.7	82	75-125	1	20	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304-1148
 Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
 1891614.05452
 Report Number: ISG0122

Sampled: 07/01/09
 Received: 07/01/09

METHOD BLANK/QC DATA

SW846 7471A

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9189354 Extracted: 07/09/09											
Matrix Spike Dup Analyzed: 07/09/2009 (D9G070271001D)						Source: D9G070271001					
Mercury	0.386	0.033	0.0055	mg/kg	0.417	0.016	89	87-111	4	20	
Matrix Spike Analyzed: 07/09/2009 (D9G070271001S)						Source: D9G070271001					
Mercury	0.37	0.033	0.0055	mg/kg	0.417	0.016	85	87-111	4	20	N
Blank Analyzed: 07/09/2009 (D9G080000354B)						Source:					
Mercury	ND	0.033	0.0055	mg/kg				-			
LCS Analyzed: 07/09/2009 (D9G080000354C)						Source:					
Mercury	0.368	0.033	0.0055	mg/kg	0.417		88	87-111			

TestAmerica Irvine

Joseph Doak
 Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

DATA QUALIFIERS AND DEFINITIONS

- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- N** Spike sample recovery is outside control limits.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

ISG0122 <Page 7 of 8>

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0122

Sampled: 07/01/09
Received: 07/01/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: SW846 7471A
Samples: ISG0122-03, ISG0122-04

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRVINE

17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ISG0122

TestAmerica Laboratories, Inc.

Client Contact
 The Boeing Company SSFL
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304
 Phone _____
 FAX _____
 Project Name: ISRA HV Waste Characterization
 Site: Happy Valley Canyon
 P O # 7KSSISRA

Project Manager: Tom Venable
 Tel/Fax: 818-466-8779 / 818-466-4873
 Analysis Turnaround Time
 Calendar (C) or Work Days (W) W
 TAT if different from Below _____
 2 weeks
 1 week
 2 days
 1 day

Site Contact: Shelby Valenzuela
 Lab Contact: Joe Donk
 Date: 7/1/04
 Carrier: Boeing
 COC No: _____ of _____ COCs
 Job No. 1891414.05452
 SDG No. _____

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:
ISCW0042 Soil	7/1/04	1111	ss. sludge	soil	1	CYN-1
ISCW0041 Soil	"	1123	↓	↓	1	"
ISCW0043 Soil	"	1134	↓	↓	1	"
ISCW0044 Soil	"	1143	↓	↓	1	"
ISCW0045 Soil						

Preservation Used: Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other
 Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown CAM 17 Metals
 Special Instructions/QC Requirements & Comments: Run STLC (WET) / TCLP if TTLC results ≥ 10x STLC / 20x TCLP thresholds

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Retinquished by: [Signature] Date/Time: 7/1/04 15:05
 Company: MWH
 Relinquished by: [Signature] Date/Time: 7-1-04 18:30
 Company: TestAmerica
 Relinquished by: [Signature] Date/Time: 7/1/04 18:30
 Company: TestAmerica

277



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9G070272

Project ISG0122

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.

Dee Kettula
for DiLea Griego
Project Manager

July 14, 2009

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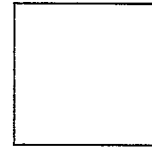
Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

(The Report Cover page is considered an integral part of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)



- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **QC Results**
- **Sample Receiving Checklist**
- **Chain of Custody**

Case Narrative

Enclosed is the report for four samples received at the TestAmerica Laboratory in Denver on July 7, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D9G070272

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 1.2°C.

Total Metals – Method 7471A

The Mercury MS/MSD performed on sample from another lot in QC batch 9189354 exhibited a percent recovery outside the QC control limits. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9G070272

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
ISG0122-01 07/01/09 11:11 001				
Mercury	0.010 J	0.033	mg/kg	SW846 7471A
ISG0122-02 07/01/09 11:23 002				
Mercury	0.0088 J	0.033	mg/kg	SW846 7471A
ISG0122-04 07/01/09 11:43 004				
Mercury	0.012 J	0.033	mg/kg	SW846 7471A

METHODS SUMMARY

D9G070272

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9G070272

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 7471A	Christopher Grisdale	9582

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9G070272

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LF5WW	001	ISG0122-01	07/01/09	11:11
LF5W0	002	ISG0122-02	07/01/09	11:23
LF5W1	003	ISG0122-03	07/01/09	11:34
LF5W2	004	ISG0122-04	07/01/09	11:43

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ISG0122-01

TOTAL Metals

Lot-Sample #...: D9G070272-001

Matrix.....: SOLID

Date Sampled...: 07/01/09 11:11 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.010 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5WW1AA
		Dilution Factor: 1		Analysis Time...: 12:39	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0122-02

TOTAL Metals

Lot-Sample #...: D9G070272-002

Matrix.....: SOLID

Date Sampled...: 07/01/09 11:23 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.0088 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W01AA
		Dilution Factor: 1		Analysis Time...: 12:41	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0122-03

TOTAL Metals

Lot-Sample #...: D9G070272-003

Matrix.....: SOLID

Date Sampled...: 07/01/09 11:34 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF5W11AA
		Dilution Factor: 1		Analysis Time...: 12:44	MDL.....: 0.0055	

TestAmerica Irvine

Client Sample ID: ISG0122-04

TOTAL Metals

Lot-Sample #...: D9G070272-004

Matrix.....: SOLID

Date Sampled...: 07/01/09 11:43 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.012 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5W21AA
		Dilution Factor: 1		Analysis Time...: 12:46	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

QC DATA ASSOCIATION SUMMARY

D9G070272

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 7471A		9189354	9189205
002	SOLID	SW846 7471A		9189354	9189205
003	SOLID	SW846 7471A		9189354	9189205
004	SOLID	SW846 7471A		9189354	9189205

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D9G070272

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MB Lot-Sample #: D9G080000-354		Prep Batch #...: 9189354				
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF64D1AA
		Dilution Factor: 1				
		Analysis Time...: 12:02				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070272

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#:	D9G080000-354	Prep Batch #...:	9189354		
Mercury	88	(87 - 111)	SW846 7471A	07/09/09	LF64D1AC
		Dilution Factor: 1		Analysis Time...: 12:04	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070272

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
------------------	-------------------------------	----------------------------------	--------------	--------------------------------	---------------	---	-------------------------------

LCS Lot-Sample#: D9G080000-354 Prep Batch #...: 9189354

Mercury	0.417	0.368	mg/kg	88	SW846 7471A	07/09/09	LF64D1AC
---------	-------	-------	-------	----	-------------	----------	----------

Dilution Factor: 1 Analysis Time...: 12:04

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070272

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:10 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MS Lot-Sample #: D9G070271-001 Prep Batch #...: 9189354							
Mercury	85 N	(87 - 111)			SW846 7471A	07/09/09	LF5WP1AC
	89	(87 - 111)	4.1	(0-20)	SW846 7471A	07/09/09	LF5WP1AD
			Dilution Factor: 1				
			Analysis Time...: 12:09				

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070272

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:10 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
------------------	----------------------	------------------	----------------------	--------------	----------------------	------------	---------------	-----------------------------------	---------------------

MS Lot-Sample #: D9G070271-001 Prep Batch #...: 9189354

Mercury

0.016	0.417	0.370	N mg/kg	85			SW846 7471A	07/09/09	LF5WP1AC
0.016	0.417	0.386	mg/kg	89	4.1		SW846 7471A	07/09/09	LF5WP1AD

Dilution Factor: 1
Analysis Time...: 12:09

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

TestAmerica Denver
Sample Receiving Checklist

Lot #: D9G070272

Date/Time Received: 7-7-09/0830

Company Name & Sampling Site: TA IRVINE - BOEING

PM to Complete This Section: Yes
Residual chlorine check required: No Quarantined: Yes No

Quote #: 72743

Special Instructions:

Set A & R to 7/15

Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 1.2 _____

N/A Yes No

Initials

LC

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading \leq to background levels? Yes: No:
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative HCl 4±2°C Sodium Thiosulfate Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver
Sample Receiving Checklist

Lot # D96070272

Login Checks:

Initials
CDK

N/A Yes No

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? AM
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials
AC

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

1.2
JK
7-7-09
C1

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0122

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: The Boeing Company-SSFL

RECEIVING LABORATORY:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone : (303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab	Price Surch	Comments
----------	-------	-----	---------	----------	-------------	----------

Sample ID: ISG0122-01	Soil			Sampled: 07/01/09 11:11		
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 11:11	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						

Sample ID: ISG0122-02	Soil			Sampled: 07/01/09 11:23		
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 11:23	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						

Sample ID: ISG0122-03	Soil			Sampled: 07/01/09 11:34		
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 11:34	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						

Sample ID: ISG0122-04	Soil			Sampled: 07/01/09 11:43		
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 11:43	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						

Olga Ornelas 7/6/09 17:00
Released By Date/Time

Released By
TestAmerica Denver

Feder 7/6/09 17:00
Received By Date/Time

Corina Qui 7-7-09 0830
Received By Date/Time

LABORATORY REPORT

Prepared For: The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project: ISRA HV Waste Characterization
1891614.05452

Sampled: 07/01/09
Received: 07/01/09
Issued: 07/15/09 14:28

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

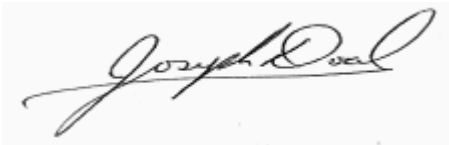
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
ISG0123-01	ISWC0045 S001	Soil
ISG0123-02	ISWC0048 S001	Soil
ISG0123-03	ISWC0047 S001	Soil
ISG0123-04	ISWC0046 S001	Soil

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0123

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0123-01 (ISWC0045 S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/08/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	4.6	1	07/06/09	07/08/09	
Barium	EPA 6010B	9G06076	0.80	1.0	43	1	07/06/09	07/08/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.50	1	07/06/09	07/08/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/08/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	12	1	07/06/09	07/08/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	5.5	1	07/06/09	07/08/09	
Copper	EPA 6010B	9G06076	0.38	2.0	6.4	1	07/06/09	07/08/09	
Lead	EPA 6010B	9G06076	0.40	2.0	7.8	1	07/06/09	07/08/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.64	1	07/06/09	07/08/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	10	1	07/06/09	07/08/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/08/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/08/09	
Thallium	EPA 6010B	9G06076	0.80	10	1.2	1	07/06/09	07/08/09	J
Vanadium	EPA 6010B	9G06076	0.30	1.0	19	1	07/06/09	07/08/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	35	1	07/06/09	07/08/09	

Sample ID: ISG0123-02 (ISWC0048 S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/07/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	5.6	1	07/06/09	07/07/09	
Barium	EPA 6010B	9G06076	0.80	1.0	45	1	07/06/09	07/07/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.51	1	07/06/09	07/07/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/07/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	14	1	07/06/09	07/07/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	4.1	1	07/06/09	07/07/09	
Copper	EPA 6010B	9G06076	0.38	2.0	7.8	1	07/06/09	07/07/09	
Lead	EPA 6010B	9G06076	0.40	2.0	5.6	1	07/06/09	07/07/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.80	1	07/06/09	07/07/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	10	1	07/06/09	07/07/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/07/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/07/09	
Thallium	EPA 6010B	9G06076	0.80	10	1.2	1	07/06/09	07/07/09	J
Vanadium	EPA 6010B	9G06076	0.30	1.0	22	1	07/06/09	07/07/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	260	1	07/06/09	07/07/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

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1891614.05452
Report Number: ISG0123

Sampled: 07/01/09
Received: 07/01/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0123-03 (ISWC0047 S001 - Soil)									
Reporting Units: mg/kg									
Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/07/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	6.0	1	07/06/09	07/07/09	
Barium	EPA 6010B	9G06076	0.80	1.0	49	1	07/06/09	07/07/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.68	1	07/06/09	07/07/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/07/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	14	1	07/06/09	07/07/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	4.2	1	07/06/09	07/07/09	
Copper	EPA 6010B	9G06076	0.38	2.0	4.9	1	07/06/09	07/07/09	
Lead	EPA 6010B	9G06076	0.40	2.0	4.9	1	07/06/09	07/07/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.88	1	07/06/09	07/07/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	10	1	07/06/09	07/07/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/07/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/07/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/07/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	25	1	07/06/09	07/07/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	36	1	07/06/09	07/10/09	

Sample ID: ISG0123-04 (ISWC0046 S001 - Soil)

Reporting Units: mg/kg

Antimony	EPA 6010B	9G06076	0.88	10	ND	1	07/06/09	07/07/09	
Arsenic	EPA 6010B	9G06076	0.81	2.0	5.4	1	07/06/09	07/07/09	
Barium	EPA 6010B	9G06076	0.80	1.0	70	1	07/06/09	07/07/09	
Beryllium	EPA 6010B	9G06076	0.20	0.50	0.65	1	07/06/09	07/07/09	
Cadmium	EPA 6010B	9G06076	0.20	0.50	ND	1	07/06/09	07/07/09	
Chromium	EPA 6010B	9G06076	0.30	1.0	15	1	07/06/09	07/07/09	
Cobalt	EPA 6010B	9G06076	0.30	1.0	4.9	1	07/06/09	07/07/09	
Copper	EPA 6010B	9G06076	0.38	2.0	7.6	1	07/06/09	07/07/09	
Lead	EPA 6010B	9G06076	0.40	2.0	17	1	07/06/09	07/07/09	
Molybdenum	EPA 6010B	9G06076	0.20	2.0	0.88	1	07/06/09	07/07/09	J
Nickel	EPA 6010B	9G06076	0.20	2.0	12	1	07/06/09	07/07/09	
Selenium	EPA 6010B	9G06076	1.0	2.0	ND	1	07/06/09	07/07/09	
Silver	EPA 6010B	9G06076	0.80	1.0	ND	1	07/06/09	07/07/09	
Thallium	EPA 6010B	9G06076	0.80	10	ND	1	07/06/09	07/07/09	
Vanadium	EPA 6010B	9G06076	0.30	1.0	26	1	07/06/09	07/07/09	
Zinc	EPA 6010B	9G06076	0.75	5.0	49	1	07/06/09	07/10/09	

TestAmerica Irvine

Joseph Doak
Project Manager

The Boeing Company-SSFL
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304-1148
 Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
 1891614.05452
 Report Number: ISG0123

Sampled: 07/01/09
 Received: 07/01/09

SW846 7471A

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISG0123-01 (ISWC0045 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.0085	1	07/09/09	07/09/09	J
Sample ID: ISG0123-02 (ISWC0048 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.012	1	07/09/09	07/09/09	J
Sample ID: ISG0123-03 (ISWC0047 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.026	1	07/09/09	07/09/09	J
Sample ID: ISG0123-04 (ISWC0046 S001 - Soil)									
Reporting Units: mg/kg									
Mercury	SW846 7471A	9189354	0.0055	0.033	0.018	1	07/09/09	07/09/09	J

TestAmerica Irvine

Joseph Doak
 Project Manager

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The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0123

Sampled: 07/01/09
Received: 07/01/09

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0123-01 (ISWC0045 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	4.6	5.0	500	5.0
Barium	mg/kg	43	100	10000	100
Beryllium	mg/kg	0.50	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	12	5.0	2500	5.0
Cobalt	mg/kg	5.5	80	8000	
Copper	mg/kg	6.4	25	2500	
Lead	mg/kg	7.8	5.0	1000	5.0
Molybdenum	mg/kg	0.64	350	3500	
Nickel	mg/kg	10	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	1.2	7.0	700	
Vanadium	mg/kg	19	24	2400	
Zinc	mg/kg	35	250	5000	
ISG0123-02 (ISWC0048 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	5.6	5.0	500	5.0
Barium	mg/kg	45	100	10000	100
Beryllium	mg/kg	0.51	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	14	5.0	2500	5.0
Cobalt	mg/kg	4.1	80	8000	
Copper	mg/kg	7.8	25	2500	
Lead	mg/kg	5.6	5.0	1000	5.0
Molybdenum	mg/kg	0.80	350	3500	
Nickel	mg/kg	10	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	1.2	7.0	700	
Vanadium	mg/kg	22	24	2400	
Zinc	mg/kg	260	250	5000	

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ISG0123 <Page 5 of 11>

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POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

Analyte	Units	Sample Result	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	TCLP Max. Limit mg/L (ppm)
ISG0123-03 (ISWC0047 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	6.0	5.0	500	5.0
Barium	mg/kg	49	100	10000	100
Beryllium	mg/kg	0.68	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	14	5.0	2500	5.0
Cobalt	mg/kg	4.2	80	8000	
Copper	mg/kg	4.9	25	2500	
Lead	mg/kg	4.9	5.0	1000	5.0
Molybdenum	mg/kg	0.88	350	3500	
Nickel	mg/kg	10	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	25	24	2400	
Zinc	mg/kg	36	250	5000	
ISG0123-04 (ISWC0046 S001 - Soil) EPA 6010B					
Antimony	mg/kg	ND	15	500	
Arsenic	mg/kg	5.4	5.0	500	5.0
Barium	mg/kg	70	100	10000	100
Beryllium	mg/kg	0.65	0.75	75	
Cadmium	mg/kg	ND	1.0	100	1.0
Chromium	mg/kg	15	5.0	2500	5.0
Cobalt	mg/kg	4.9	80	8000	
Copper	mg/kg	7.6	25	2500	
Lead	mg/kg	17	5.0	1000	5.0
Molybdenum	mg/kg	0.88	350	3500	
Nickel	mg/kg	12	20	2000	
Selenium	mg/kg	ND	1.0	100	1.0
Silver	mg/kg	ND	5.0	500	5.0
Thallium	mg/kg	ND	7.0	700	
Vanadium	mg/kg	26	24	2400	
Zinc	mg/kg	49	250	5000	

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1891614.05452
Report Number: ISG0123

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD RPD	Data Qualifiers
Batch: 9G06076 Extracted: 07/06/09										
Blank Analyzed: 07/08/2009 (9G06076-BLK1)										
Antimony	ND	10	0.88	mg/kg						
Arsenic	ND	2.0	0.81	mg/kg						
Barium	ND	1.0	0.80	mg/kg						
Beryllium	ND	0.50	0.20	mg/kg						
Cadmium	ND	0.50	0.20	mg/kg						
Chromium	ND	1.0	0.30	mg/kg						
Cobalt	ND	1.0	0.30	mg/kg						
Copper	ND	2.0	0.38	mg/kg						
Lead	ND	2.0	0.40	mg/kg						
Molybdenum	ND	2.0	0.20	mg/kg						
Nickel	ND	2.0	0.20	mg/kg						
Selenium	ND	2.0	1.0	mg/kg						
Silver	ND	1.0	0.80	mg/kg						
Thallium	ND	10	0.80	mg/kg						
Vanadium	ND	1.0	0.30	mg/kg						
Zinc	ND	5.0	0.75	mg/kg						
LCS Analyzed: 07/08/2009 (9G06076-BS1)										
Antimony	44.7	10	0.88	mg/kg	50.0		89	80-120		
Arsenic	45.0	2.0	0.81	mg/kg	50.0		90	80-120		
Barium	45.7	1.0	0.80	mg/kg	50.0		91	80-120		
Beryllium	44.3	0.50	0.20	mg/kg	50.0		89	80-120		
Cadmium	45.0	0.50	0.20	mg/kg	50.0		90	80-120		
Chromium	44.9	1.0	0.30	mg/kg	50.0		90	80-120		
Cobalt	43.7	1.0	0.30	mg/kg	50.0		87	80-120		
Copper	44.8	2.0	0.38	mg/kg	50.0		90	80-120		
Lead	45.6	2.0	0.40	mg/kg	50.0		91	80-120		
Molybdenum	42.8	2.0	0.20	mg/kg	50.0		86	80-120		
Nickel	45.4	2.0	0.20	mg/kg	50.0		91	80-120		
Selenium	42.6	2.0	1.0	mg/kg	50.0		85	80-120		
Silver	22.3	1.0	0.80	mg/kg	25.0		89	80-120		
Thallium	44.8	10	0.80	mg/kg	50.0		90	80-120		
Vanadium	44.7	1.0	0.30	mg/kg	50.0		89	80-120		
Zinc	43.8	5.0	0.75	mg/kg	50.0		88	80-120		

TestAmerica Irvine

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Project Manager

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1891614.05452
Report Number: ISG0123

Sampled: 07/01/09
Received: 07/01/09

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9G06076 Extracted: 07/06/09											
Matrix Spike Analyzed: 07/08/2009 (9G06076-MS1)						Source: ISG0121-01					
Antimony	13.4	10	0.88	mg/kg	50.0	ND	27	75-125			M2
Arsenic	47.6	2.0	0.81	mg/kg	50.0	4.33	87	75-125			
Barium	118	1.0	0.80	mg/kg	50.0	73.7	89	75-125			
Beryllium	45.2	0.50	0.20	mg/kg	50.0	0.640	89	75-125			
Cadmium	43.6	0.50	0.20	mg/kg	50.0	ND	87	75-125			
Chromium	66.8	1.0	0.30	mg/kg	50.0	22.6	88	75-125			
Cobalt	48.6	1.0	0.30	mg/kg	50.0	7.12	83	75-125			
Copper	58.4	2.0	0.38	mg/kg	50.0	12.9	91	75-125			
Lead	50.0	2.0	0.40	mg/kg	50.0	6.86	86	75-125			
Molybdenum	38.5	2.0	0.20	mg/kg	50.0	0.831	75	75-125			
Nickel	56.8	2.0	0.20	mg/kg	50.0	14.4	85	75-125			
Selenium	41.3	2.0	1.0	mg/kg	50.0	ND	83	75-125			
Silver	22.2	1.0	0.80	mg/kg	25.0	ND	89	75-125			
Thallium	42.6	10	0.80	mg/kg	50.0	ND	85	75-125			
Vanadium	85.3	1.0	0.30	mg/kg	50.0	40.2	90	75-125			
Zinc	99.2	5.0	0.75	mg/kg	50.0	56.7	85	75-125			
Matrix Spike Dup Analyzed: 07/08/2009 (9G06076-MSD1)						Source: ISG0121-01					
Antimony	17.2	10	0.88	mg/kg	50.0	ND	34	75-125	25	20	M2
Arsenic	47.4	2.0	0.81	mg/kg	50.0	4.33	86	75-125	1	20	
Barium	116	1.0	0.80	mg/kg	50.0	73.7	85	75-125	2	20	
Beryllium	44.4	0.50	0.20	mg/kg	50.0	0.640	88	75-125	2	20	
Cadmium	42.7	0.50	0.20	mg/kg	50.0	ND	85	75-125	2	20	
Chromium	65.7	1.0	0.30	mg/kg	50.0	22.6	86	75-125	2	20	
Cobalt	48.1	1.0	0.30	mg/kg	50.0	7.12	82	75-125	1	20	
Copper	57.3	2.0	0.38	mg/kg	50.0	12.9	89	75-125	2	20	
Lead	49.5	2.0	0.40	mg/kg	50.0	6.86	85	75-125	1	20	
Molybdenum	39.4	2.0	0.20	mg/kg	50.0	0.831	77	75-125	2	20	
Nickel	56.1	2.0	0.20	mg/kg	50.0	14.4	84	75-125	1	20	
Selenium	39.8	2.0	1.0	mg/kg	50.0	ND	80	75-125	4	20	
Silver	21.9	1.0	0.80	mg/kg	25.0	ND	87	75-125	1	20	
Thallium	42.3	10	0.80	mg/kg	50.0	ND	85	75-125	1	20	
Vanadium	84.3	1.0	0.30	mg/kg	50.0	40.2	88	75-125	1	20	
Zinc	97.7	5.0	0.75	mg/kg	50.0	56.7	82	75-125	1	20	

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METHOD BLANK/QC DATA

SW846 7471A

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9189354 Extracted: 07/09/09											
Matrix Spike Dup Analyzed: 07/09/2009 (D9G070271001D)						Source: D9G070271001					
Mercury	0.386	0.033	0.0055	mg/kg	0.417	0.016	89	87-111	4	20	
Matrix Spike Analyzed: 07/09/2009 (D9G070271001S)						Source: D9G070271001					
Mercury	0.37	0.033	0.0055	mg/kg	0.417	0.016	85	87-111	4	20	N
Blank Analyzed: 07/09/2009 (D9G080000354B)						Source:					
Mercury	ND	0.033	0.0055	mg/kg				-			
LCS Analyzed: 07/09/2009 (D9G080000354C)						Source:					
Mercury	0.368	0.033	0.0055	mg/kg	0.417		88	87-111			

TestAmerica Irvine

Joseph Doak
 Project Manager

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0123

Sampled: 07/01/09
Received: 07/01/09

DATA QUALIFIERS AND DEFINITIONS

- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- N** Spike sample recovery is outside control limits.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

ISG0123 <Page 10 of 11>

The Boeing Company-SSFL
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148
Attention: Tom Venable

Project ID: ISRA HV Waste Characterization
1891614.05452
Report Number: ISG0123

Sampled: 07/01/09
Received: 07/01/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: SW846 7471A

Samples: ISG0123-01, ISG0123-02, ISG0123-03, ISG0123-04

TestAmerica Irvine

Joseph Doak
Project Manager

IRVINE

17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

IS60123

TestAmerica Laboratories, Inc.

Client Contact: **The Boeing Company SSFL**
 Project Manager: **Tom Venable**
 Tel/Fax: **818-466-8779 / 818-466-4873**
 Site Contact: **Shelby Valenzuela**
 Lab Contact: **Joe Donk**
 Date: **7/1/09**
 Carrier: **Bestair**
 COC No: _____ of _____ COCs

Analysis Turnaround Time
 Calendar (C) or Work Days (W) C
 TAT if different from Below
 2 weeks
 1 week
 2 days
 1 day

Project Name: **ISRA HW Work Characterization**
 Site: **Happy Valley**
 PO #: **7KSS/ISRA**

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Entered Sample	Sample Specific Notes:
ISCW0045 S001	7/1/09	1304	SS Stone Soil	Soil	1	X	DRG-1
ISCW0048 S001	↓	1316	↓	↓	1	X	"
ISCW0047 S001	↓	1325	↓	↓	1	X	"
ISCW0046 S001	↓	1334	↓	↓	1	X	"
			Presy				

Preservation Used: Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other _____
 Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poisonous Unknown Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements & Comments: **Run STLC (WET) / TCLP if TTLC results ≥ 10x STLC / 20x TCLP thresholds**

Relinquished by: *[Signature]* Date/Time: **7/1/09 15:05** Company: **Test America**

Relinquished by: *[Signature]* Date/Time: **7/1/09 15:05** Company: **Test America**

Relinquished by: *[Signature]* Date/Time: **7/1/09 18:30** Company: **Test America**

Relinquished by: *[Signature]* Date/Time: _____ Company: _____

0.0105
4/1/09
S/S

270



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9G070275

Project ISG0123

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.

Dee Kettula
for DiLea Griego
Project Manager

July 14, 2009

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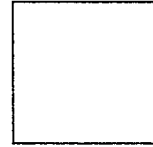
Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

(The Report Cover page is considered an integral part of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)



- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **QC Results**
- **Sample Receiving Checklist**
- **Chain of Custody**

Case Narrative

Enclosed is the report for four samples received at the TestAmerica Laboratory in Denver on July 7, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D9G070275

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 1.2°C.

Total Metals – Method 7471A

The Mercury MS/MSD performed on sample from another lot in QC batch 9189354 exhibited a percent recovery outside the QC control limits. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9G070275

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
ISG0123-01 07/01/09 13:04 001				
Mercury	0.0085 J	0.033	mg/kg	SW846 7471A
ISG0123-02 07/01/09 13:16 002				
Mercury	0.012 J	0.033	mg/kg	SW846 7471A
ISG0123-03 07/01/09 13:25 003				
Mercury	0.026 J	0.033	mg/kg	SW846 7471A
ISG0123-04 07/01/09 13:34 004				
Mercury	0.018 J	0.033	mg/kg	SW846 7471A

METHODS SUMMARY

D9G070275

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D9G070275

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 7471A	Christopher Gridale	9582

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D9G070275

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LF5XE	001	ISG0123-01	07/01/09	13:04
LF5XF	002	ISG0123-02	07/01/09	13:16
LF5XG	003	ISG0123-03	07/01/09	13:25
LF5XH	004	ISG0123-04	07/01/09	13:34

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ISG0123-01

TOTAL Metals

Lot-Sample #....: D9G070275-001

Matrix.....: SOLID

Date Sampled....: 07/01/09 13:04 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #....: 9189354						
Mercury	0.0085 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XE1AA
		Dilution Factor: 1		Analysis Time...: 12:48	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0123-02

TOTAL Metals

Lot-Sample #...: D9G070275-002

Matrix.....: SOLID

Date Sampled...: 07/01/09 13:16 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.012 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XF1AA
		Dilution Factor: 1		Analysis Time...: 12:50	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0123-03

TOTAL Metals

Lot-Sample #...: D9G070275-003

Matrix.....: SOLID

Date Sampled...: 07/01/09 13:25 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.026 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XG1AA
		Dilution Factor: 1		Analysis Time...: 12:57	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

TestAmerica Irvine

Client Sample ID: ISG0123-04

TOTAL Metals

Lot-Sample #...: D9G070275-004

Matrix.....: SOLID

Date Sampled...: 07/01/09 13:34 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 9189354						
Mercury	0.018 J	0.033	mg/kg	SW846 7471A	07/09/09	LF5XH1AA
		Dilution Factor: 1		Analysis Time...: 13:00	MDL.....: 0.0055	

NOTE(S) :

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

QC DATA ASSOCIATION SUMMARY

D9G070275

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 7471A		9189354	9189205
002	SOLID	SW846 7471A		9189354	9189205
003	SOLID	SW846 7471A		9189354	9189205
004	SOLID	SW846 7471A		9189354	9189205

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D9G070275

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MB Lot-Sample #: D9G080000-354		Prep Batch #...: 9189354				
Mercury	ND	0.033	mg/kg	SW846 7471A	07/09/09	LF64D1AA
		Dilution Factor: 1				
		Analysis Time...: 12:02				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070275

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#:	D9G080000-354	Prep Batch #...:	9189354		
Mercury	88	(87 - 111)	SW846 7471A	07/09/09	LF64D1AC
		Dilution Factor: 1	Analysis Time..:	12:04	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D9G070275

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
------------------	-------------------------------	----------------------------------	--------------	--------------------------------	---------------	---	-------------------------------

LCS Lot-Sample#: D9G080000-354 Prep Batch #...: 9189354

Mercury	0.417	0.368	mg/kg	88	SW846 7471A	07/09/09	LF64D1AC
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Dilution Factor: 1 Analysis Time...: 12:04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D9G070275

Matrix.....: SOLID

Date Sampled...: 07/01/09 12:10 Date Received...: 07/07/09

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: D9G070271-001 Prep Batch #...: 9189354							
Mercury	85 N	(87 - 111)			SW846 7471A	07/09/09	LF5WP1AC
	89	(87 - 111)	4.1	(0-20)	SW846 7471A	07/09/09	LF5WP1AD
			Dilution Factor: 1				
			Analysis Time...: 12:09				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #....: D9G070275

Matrix.....: SOLID

Date Sampled....: 07/01/09 12:10 Date Received...: 07/07/09

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
------------------	----------------------	------------------	----------------------	--------------	----------------------	------------	---------------	-----------------------------------	---------------------

MS Lot-Sample #: D9G070271-001 Prep Batch #....: 9189354

Mercury

0.016	0.417	0.370	N mg/kg	85			SW846 7471A	07/09/09	LF5WPLAC
0.016	0.417	0.386	mg/kg	89	4.1		SW846 7471A	07/09/09	LF5WPLAD

Dilution Factor: 1

Analysis Time...: 12:09

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

TestAmerica Denver
Sample Receiving Checklist

Lot #: D9G070275 Date/Time Received: 7-7-09/0930

Company Name & Sampling Site: TA IRVINE & BOEING

PM to Complete This Section: Yes No
Residual chlorine check required: Quarantined:

Quote #: 72743

Special Instructions:

*Set A & R to
7/15*

Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____

Temperatures (°C): 1.2° _____

N/A Yes No

Initials

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR. jc
- 2. Coolers scanned for radiation. Is the reading \leq to background levels? Yes: No:
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative HCl 4±2°C Sodium Thiosulfate Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver
Sample Receiving Checklist

Lot # D9G070275

Login Checks:

Initials
CHK

N/A Yes No

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? All
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials
LC

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

1.2
7-7-09
17

SUBCONTRACT ORDER

TestAmerica Irvine

ISG0123

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: The Boeing Company-SSFL

RECEIVING LABORATORY:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone : (303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ISG0123-01	Soil					Sampled: 07/01/09 13:04
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 13:04	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						
Sample ID: ISG0123-02	Soil					Sampled: 07/01/09 13:16
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 13:16	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						
Sample ID: ISG0123-03	Soil					Sampled: 07/01/09 13:25
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 13:25	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						
Sample ID: ISG0123-04	Soil					Sampled: 07/01/09 13:34
Mercury-7470/7471-OUT	mg/kg	07/13/09	07/29/09 13:34	\$35.00	0%	J Flags/Boeing/sub to denver
Containers Supplied: 4 oz Jar (B)						

Olga Ornelas
Released By

7/6/09 17:00
Date/Time

FedEx
Received By

7/6/09 17:00
Date/Time

Released By
TestAmerica Denver

Date/Time

Coisao Bui
Received By

7-7-09/0930
Date/Time