

CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA

AMEC Earth & Environmental
550 South Wadsworth Boulevard
Suite 500
Lakewood, CO 80226

Package ID T713MT5
Task Order 313150010
SDG No. IOJ0896
No. of Analyses 5

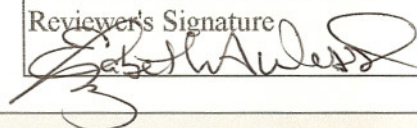
Laboratory Del Mar- Irvine

Reviewer E. Wessling

Analysis/Method Metals by 6010B/7471A

Date: December 20, 2005

Reviewer's Signature



ACTION ITEMS^a

| | |
|-------------------------------|---|
| 1. Case Narrative | |
| Deficiencies | |
| 2. Out of Scope | |
| Analyses | |
| 3. Analyses Not Conducted | |
| 4. Missing Hardcopy | |
| Deliverables | |
| 5. Incorrect Hardcopy | |
| Deliverables | |
| 6. Deviations from Analysis | Qualifications were assigned for the following: |
| Protocol, e.g., | --rejections for MS/MSD outliers |
| Holding Times | -- estimations for MS/MSD outliers |
| GC/MS Tune/Inst. Performance | -- blank spike outliers |
| Calibration | |
| Method blanks | |
| Surrogates | |
| Matrix Spike/Dup LCS | |
| Field QC | |
| Internal Standard Performance | |
| Compound Identification | |
| Quantitation | |
| System Performance | |

COMMENTS^b

^a Subcontracted analytical laboratory is not meeting contract and/or method requirements.

^b Differences in protocol have been adopted by the laboratory but no action against the laboratory is required.



DATA VALIDATION REPORT

Topanga Fire Ash Samples

ANALYSIS: METALS

SAMPLE DELIVERY GROUP IOJ0896

Prepared by

AMEC—Denver Operations
355 South Teller Street, Suite 300
Lakewood, Colorado 80226

1. INTRODUCTION

| | |
|------------------------------|--------------------------|
| Task Order Title: | Topanga Fire Ash Samples |
| Contract Task Order #: | 313150010 |
| SDG#: | IOJ0896 |
| Project Manager: | P. Costa |
| Matrix: | Solid |
| Analysis: | Metals |
| QC Level: | Level IV |
| No. of Samples: | 5 |
| No. of Reanalyses/Dilutions: | 0 |
| Reviewer: | E. Wessling |
| Date of Review: | December 7, 2005 |

The samples listed in Table 1 were validated based on the guidelines outlined in the *AMEC Data Validation Procedure for Levels III and IV ICP Metals* (DVP-5, Rev. 2), *SW-846 Methods 6010B for ICP-AES and 7471A for Mercury (Manual Cold-Vapor Technique)*, and validation guidelines outlined in the *USEPA CLP National Functional Guidelines for Inorganic Data Review* (2/94). Any deviations from these procedures and guidelines are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the Form I as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

Table 1. Sample identification

| Client ID | EPA ID | Laboratory ID | Matrix | COC Method |
|----------------|--------|---------------|--------|------------|
| SGSS01S01 Soil | WL016 | IOJ0896-01 | Soil | 6010/7471 |
| SGSS01S01 Ash | WL017 | IOJ0896-02 | Ash | 6010/7471 |
| BKND-5 (Soil) | WL018 | IOJ0896-03 | Soil | 6010/7471 |
| BKND-5 (Ash) | WL019 | IOJ0896-04 | Ash | 6010/7471 |
| BKND-1 (Soil) | WL021 | IOJ0896-06 | Soil | 6010/7471 |

2. DATA VALIDATION FINDINGS

2.1 SAMPLE MANAGEMENT

Following are findings associated with sample management:

2.1.1 Sample Preservation, Handling, and Transport

Samples in this SDG was received at the laboratory within the temperature limits of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$. No qualifications were required. No sample preservation, handling, or transport problems were noted, and no qualifications were necessary.

2.1.2 Chain of Custody

The COC was signed and dated by field and laboratory personnel. The COC accounted for the samples and analyses presented in this SDG. No sample qualifications were required.

2.1.3 Holding Times

The dates of collection recorded on the COC and the dates of analyses recorded in the raw data, documented that the sample analyses were performed within the specified holding times of six months for the ICP metals and 28-days for mercury. No qualifications were required.

2.2 ICP-MS TUNING

The ICP-MS analysis was not utilized for the samples in this SGD and therefore not applicable.

2.3 CALIBRATION

The ICV and CCV results showed acceptable recoveries, 90-110% for ICP metals and 80-120% for mercury. The laboratory analyzed reporting limit check standards in association with this SDG and all recoveries were acceptable. No qualifications were required.

2.4 BLANKS

The method blank and CCB results were nondetects at the reporting limit or were significantly below the sample detects so as not to result in qualification of the data. No qualifications were required.

2.5 ICP INTERFERENCE CHECK SAMPLE (ICS A/AB)

ICSA and ICSAB analyses were included in the raw data for the ICP analyses. The recoveries were within the control limits and no qualifications were required.

2.6 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

The ICP LCS samples and mercury LCS samples as reported on the LCS on the summary forms and in the raw data were within the laboratory-established control limits with the exception of aluminum. Aluminum was recovered below the control limits at 67.8%. Aluminum was qualified as an estimated detect, "J," in all site samples in this SDG. No further qualifications were required.

2.7 LABORATORY DUPLICATES

MS/MSD analyses were performed on sample WL016. All RPDs were within control limits. No qualification was required.

2.8 MATRIX SPIKE

MS/MSD analyses were performed on sample WL016. Antimony and nickel were recovered below the control limits. Antimony nondetects were rejected, "R," antimony and nickel detects were qualified as estimated, "J," and nickel nondetects were qualified as estimated, "UJ." No further qualifications were required.

2.9 FURNACE ATOMIC ABSORPTION QC

Furnace atomic absorption was not utilized for the analyses of these samples; therefore, furnace atomic absorption QC is not applicable.

2.10 ICP/MS AND ICP SERIAL DILUTION

No serial dilution analyses were performed in association with the samples in this SDG; therefore, no assessment was made with respect to this criterion.

2.11 INTERNAL STANDARDS PERFORMANCE

The ICP-MS analysis was not utilized for the samples in this SGD and therefore not applicable.

2.12 SAMPLE RESULT VERIFICATION

A Level IV review was performed for the samples in this data package. Calculations were verified, and the sample results reported on the Form Is were verified against the raw data. No transcription errors or calculation errors were noted. No sample weights were recorded for the mercury analysis; therefore, all mercury results were qualified as estimated, "J" for detects and "UJ" for nondetects. Some target analytes were reported from dilution analyses due to matrix interference. Reporting limits and MDLs were adjusted accordingly. Samples collected to support the fire and surface water monitoring programs were qualified as estimated data between the RL and MDL in keeping with the requirements of the NPDES monitoring program. Samples collected for the soil background evaluation program were qualified following the RFI program criteria. No further qualifications were required.

2.13 FIELD QC SAMPLES

Field QC samples are evaluated, and if necessary, qualified based only on laboratory blanks. Any remaining detects are used to evaluate the associated samples.

2.13.1 Field Blanks and Equipment Rinsates

The samples in this SDG had no associated field QC samples. No qualifications were required.

2.13.2 Field Duplicates

There were no field duplicate analyses performed in association with the site samples.



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MWH-San Diego
 9444 Farnham Street, Suite 300
 San Diego, CA 92123
 Attention: Lisa J. Tucker

Project ID: Ash samples - RFI
 Boeing SSFL
 Report Number: IOJ0896

Sampled: 10/13/05
 Received: 10/13/05

METALS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--------------------------------------|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| Sample ID: IOJ0896-01 (WL016 - Soil) | | | | | | | | | |
| Reporting Units: mg/kg dry | | | | | | | | | |
| Aluminum | EPA 6010B | 5J17082 | 10 | 20 | 11000 | 2 | 10/17/05 | 10/19/05 | M-HA |
| Antimony | EPA 6010B | 5J17082 | 1.6 | 20 | ND | 2 | 10/17/05 | 10/19/05 | M2, RL-1 |
| Arsenic | EPA 6010B | 5J17082 | 1.2 | 4.0 | 2.7 | 2 | 10/17/05 | 10/19/05 | J |
| Barium | EPA 6010B | 5J17082 | 1.6 | 2.0 | 110 | 2 | 10/17/05 | 10/19/05 | M1 |
| Beryllium | EPA 6010B | 5J17082 | 0.40 | 1.0 | 0.45 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Boron | EPA 6010B | 5J17082 | 2.0 | 10 | 6.4 | 2 | 10/17/05 | 10/19/05 | B, RL-1, J |
| Cadmium | EPA 6010B | 5J17082 | 0.40 | 1.0 | 0.59 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Chromium | EPA 6010B | 5J17082 | 0.61 | 2.0 | 17 | 2 | 10/17/05 | 10/20/05 | |
| Cobalt | EPA 6010B | 5J17082 | 0.61 | 2.0 | 4.9 | 2 | 10/17/05 | 10/19/05 | |
| Copper | EPA 6010B | 5J17082 | 0.40 | 4.0 | 11 | 2 | 10/17/05 | 10/19/05 | |
| Iron | EPA 6010B | 5J17082 | 3.0 | 10 | 17000 | 2 | 10/17/05 | 10/20/05 | M-HA |
| Lead | EPA 6010B | 5J17082 | 0.81 | 4.0 | 24 | 2 | 10/17/05 | 10/19/05 | |
| Lithium | EPA 6010B | 5J17082 | 1.8 | 13 | 20 | 2 | 10/17/05 | 10/19/05 | |
| Manganese | EPA 6010B | 5J17082 | 1.6 | 2.0 | 310 | 2 | 10/17/05 | 10/20/05 | M-HA |
| Mercury | EPA 7471A | 5J20062 | 0.0030 | 0.020 | 0.017 | 1 | 10/20/05 | 10/20/05 | J |
| Molybdenum | EPA 6010B | 5J17082 | 0.40 | 4.0 | 0.54 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Nickel | EPA 6010B | 5J17082 | 0.40 | 4.0 | 21 | 2 | 10/17/05 | 10/19/05 | M2 |
| Potassium | EPA 6010B | 5J17082 | 81 | 100 | 4300 | 2 | 10/17/05 | 10/20/05 | M-HA |
| Selenium | EPA 6010B | 5J17082 | 2.0 | 4.0 | ND | 2 | 10/17/05 | 10/19/05 | RL-1 |
| Silver | EPA 6010B | 5J17082 | 0.81 | 2.0 | ND | 2 | 10/17/05 | 10/19/05 | RL-1 |
| Sodium | EPA 6010B | 5J17082 | 30 | 100 | 110 | 2 | 10/17/05 | 10/20/05 | M2 |
| Thallium | EPA 6010B | 5J17082 | 1.6 | 20 | 4.5 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Vanadium | EPA 6010B | 5J17082 | 0.61 | 2.0 | 30 | 2 | 10/17/05 | 10/19/05 | |
| Zinc | EPA 6010B | 5J17082 | 3.0 | 10 | 64 | 2 | 10/17/05 | 10/19/05 | B-1, M1 |
| Zirconium | EPA 6010B | 5J18069 | 1.5 | 25 | 1.6 | 1 | 10/18/05 | 10/22/05 | J |

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 Michele Harper
 Project Manager

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IOJ0896 <Page 2 of 18>



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MWH-San Diego
 9444 Farnham Street, Suite 300
 San Diego, CA 92123
 Attention: Lisa J. Tucker

Project ID: Ash samples - RFI
 Boeing SSFL
 Report Number: IOJ0896

Sampled: 10/13/05
 Received: 10/13/05

METALS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---------------------------------------|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| Sample ID: IOJ0896-02 (WL017 - Solid) | | | | | | | | | |
| Reporting Units: mg/kg dry | | | | | | | | | |
| Aluminum | EPA 6010B | 5J17082 | 10 | 20 | 12000 | 2 | 10/17/05 | 10/19/05 | |
| Antimony | EPA 6010B | 5J17082 | 1.6 | 20 | ND | 2 | 10/17/05 | 10/19/05 | RL-1 |
| Arsenic | EPA 6010B | 5J17082 | 1.2 | 4.1 | 2.6 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Barium | EPA 6010B | 5J17082 | 1.6 | 2.0 | 240 | 2 | 10/17/05 | 10/19/05 | |
| Beryllium | EPA 6010B | 5J17082 | 0.41 | 1.0 | 0.41 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Boron | EPA 6010B | 5J17082 | 2.0 | 10 | 57 | 2 | 10/17/05 | 10/19/05 | B-1 |
| Cadmium | EPA 6010B | 5J17082 | 0.41 | 1.0 | 1.1 | 2 | 10/17/05 | 10/19/05 | |
| Chromium | EPA 6010B | 5J17082 | 0.61 | 2.0 | 18 | 2 | 10/17/05 | 10/20/05 | |
| Cobalt | EPA 6010B | 5J17082 | 0.61 | 2.0 | 5.4 | 2 | 10/17/05 | 10/19/05 | |
| Copper | EPA 6010B | 5J17082 | 0.41 | 4.1 | 30 | 2 | 10/17/05 | 10/19/05 | |
| Iron | EPA 6010B | 5J17082 | 3.0 | 10 | 17000 | 2 | 10/17/05 | 10/20/05 | |
| Lead | EPA 6010B | 5J17082 | 0.81 | 4.1 | 64 | 2 | 10/17/05 | 10/19/05 | |
| Lithium | EPA 6010B | 5J17082 | 1.8 | 13 | 16 | 2 | 10/17/05 | 10/19/05 | |
| Manganese | EPA 6010B | 5J17082 | 1.6 | 2.0 | 540 | 2 | 10/17/05 | 10/20/05 | |
| Mercury | EPA 7471A | 5J20062 | 0.0030 | 0.020 | 0.058 | 1 | 10/20/05 | 10/20/05 | |
| Molybdenum | EPA 6010B | 5J17082 | 0.41 | 4.1 | 1.0 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Nickel | EPA 6010B | 5J17082 | 0.41 | 4.1 | 21 | 2 | 10/17/05 | 10/19/05 | |
| Potassium | EPA 6010B | 5J17082 | 81 | 100 | 9400 | 2 | 10/17/05 | 10/20/05 | |
| Selenium | EPA 6010B | 5J17082 | 2.0 | 4.1 | ND | 2 | 10/17/05 | 10/19/05 | RL-1 |
| Silver | EPA 6010B | 5J17082 | 0.81 | 2.0 | ND | 2 | 10/17/05 | 10/19/05 | RL-1 |
| Sodium | EPA 6010B | 5J17082 | 30 | 100 | 430 | 2 | 10/17/05 | 10/20/05 | |
| Thallium | EPA 6010B | 5J17082 | 1.6 | 20 | 3.2 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Vanadium | EPA 6010B | 5J17082 | 0.61 | 2.0 | 35 | 2 | 10/17/05 | 10/19/05 | |
| Zinc | EPA 6010B | 5J17082 | 3.0 | 10 | 190 | 2 | 10/17/05 | 10/19/05 | B-1 |
| Zirconium | EPA 6010B | 5J18069 | 1.5 | 25 | 2.8 | 1 | 10/18/05 | 10/22/05 | J |

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IOJ0896 <Page 3 of 18>



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MWH-San Diego
 9444 Farnham Street, Suite 300
 San Diego, CA 92123
 Attention: Lisa J. Tucker

Project ID: Ash samples - RFI
 Boeing SSFL
 Report Number: IOJ0896

Sampled: 10/13/05
 Received: 10/13/05

METALS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--------------------------------------|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| Sample ID: IOJ0896-03 (WL018 - Soil) | | | | | | | | | |
| Reporting Units: mg/kg dry | | | | | | | | | |
| Aluminum | EPA 6010B | 5J17082 | 11 | 22 | 9800 | 2 | 10/17/05 | 10/19/05 | |
| Antimony | EPA 6010B | 5J17082 | 1.7 | 22 | ND | 2 | 10/17/05 | 10/19/05 | RL-1 |
| Arsenic | EPA 6010B | 5J17082 | 1.3 | 4.4 | 3.9 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Barium | EPA 6010B | 5J17082 | 1.7 | 2.2 | 76 | 2 | 10/17/05 | 10/19/05 | |
| Beryllium | EPA 6010B | 5J17082 | 0.44 | 1.1 | 0.47 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Boron | EPA 6010B | 5J17082 | 2.2 | 11 | 6.0 | 2 | 10/17/05 | 10/19/05 | B, RL-1, J |
| Cadmium | EPA 6010B | 5J17082 | 0.44 | 1.1 | 0.48 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Chromium | EPA 6010B | 5J17082 | 0.65 | 2.2 | 12 | 2 | 10/17/05 | 10/20/05 | |
| Cobalt | EPA 6010B | 5J17082 | 0.65 | 2.2 | 4.1 | 2 | 10/17/05 | 10/19/05 | |
| Copper | EPA 6010B | 5J17082 | 0.44 | 4.4 | 8.0 | 2 | 10/17/05 | 10/19/05 | |
| Iron | EPA 6010B | 5J17082 | 3.3 | 11 | 15000 | 2 | 10/17/05 | 10/20/05 | |
| Lead | EPA 6010B | 5J17082 | 0.87 | 4.4 | 27 | 2 | 10/17/05 | 10/19/05 | |
| Lithium | EPA 6010B | 5J17082 | 2.0 | 14 | 19 | 2 | 10/17/05 | 10/19/05 | |
| Manganese | EPA 6010B | 5J17082 | 1.7 | 2.2 | 270 | 2 | 10/17/05 | 10/20/05 | |
| Mercury | EPA 7471A | 5J20062 | 0.0033 | 0.022 | 0.0091 | 1 | 10/20/05 | 10/20/05 | J |
| Molybdenum | EPA 6010B | 5J17082 | 0.44 | 4.4 | ND | 2 | 10/17/05 | 10/19/05 | RL-1 |
| Nickel | EPA 6010B | 5J17082 | 0.44 | 4.4 | 11 | 2 | 10/17/05 | 10/19/05 | |
| Potassium | EPA 6010B | 5J17082 | 87 | 110 | 3300 | 2 | 10/17/05 | 10/20/05 | |
| Selenium | EPA 6010B | 5J17082 | 2.2 | 4.4 | ND | 2 | 10/17/05 | 10/19/05 | RL-1 |
| Silver | EPA 6010B | 5J17082 | 0.87 | 2.2 | ND | 2 | 10/17/05 | 10/19/05 | RL-1 |
| Sodium | EPA 6010B | 5J17082 | 33 | 110 | 69 | 2 | 10/17/05 | 10/20/05 | RL-1, J |
| Thallium | EPA 6010B | 5J17082 | 1.7 | 22 | 3.3 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Vanadium | EPA 6010B | 5J17082 | 0.65 | 2.2 | 23 | 2 | 10/17/05 | 10/19/05 | |
| Zinc | EPA 6010B | 5J17082 | 3.3 | 11 | 55 | 2 | 10/17/05 | 10/19/05 | B-1 |
| Zirconium | EPA 6010B | 5J18069 | 1.6 | 27 | 1.7 | 1 | 10/18/05 | 10/22/05 | J |

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IOJ0896 <Page 4 of 18>



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MWH-San Diego
 9444 Farnham Street, Suite 300
 San Diego, CA 92123
 Attention: Lisa J. Tucker

Project ID: Ash samples - RFI
 Boeing SSFL
 Report Number: IOJ0896

Sampled: 10/13/05
 Received: 10/13/05

METALS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---------------------------------------|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| Sample ID: IOJ0896-04 (WL019 - Solid) | | | | | | | | | |
| Reporting Units: mg/kg dry | | | | | | | | | |
| Aluminum | EPA 6010B | 5J17082 | 22 | 44 | 3400 | 4 | 10/17/05 | 10/20/05 | |
| Antimony | EPA 6010B | 5J17082 | 3.5 | 44 | ND | 4 | 10/17/05 | 10/20/05 | RL-1 |
| Arsenic | EPA 6010B | 5J17082 | 2.7 | 8.8 | ND | 4 | 10/17/05 | 10/20/05 | RL-1 |
| Barium | EPA 6010B | 5J17082 | 3.5 | 4.4 | 360 | 4 | 10/17/05 | 10/20/05 | |
| Beryllium | EPA 6010B | 5J17082 | 0.88 | 2.2 | ND | 4 | 10/17/05 | 10/20/05 | RL-1 |
| Boron | EPA 6010B | 5J17082 | 4.4 | 22 | 85 | 4 | 10/17/05 | 10/20/05 | B-1 |
| Cadmium | EPA 6010B | 5J17082 | 0.88 | 2.2 | ND | 4 | 10/17/05 | 10/20/05 | RL-1 |
| Chromium | EPA 6010B | 5J17082 | 1.3 | 4.4 | 2.3 | 4 | 10/17/05 | 10/20/05 | RL-1, J |
| Cobalt | EPA 6010B | 5J17082 | 1.3 | 4.4 | 1.6 | 4 | 10/17/05 | 10/20/05 | RL-1, J |
| Copper | EPA 6010B | 5J17082 | 0.88 | 8.8 | 25 | 4 | 10/17/05 | 10/20/05 | |
| Iron | EPA 6010B | 5J17082 | 6.6 | 22 | 4200 | 4 | 10/17/05 | 10/20/05 | |
| Lead | EPA 6010B | 5J17082 | 1.8 | 8.8 | 5.2 | 4 | 10/17/05 | 10/20/05 | RL-1, J |
| Lithium | EPA 6010B | 5J17082 | 4.0 | 28 | 9.4 | 4 | 10/17/05 | 10/20/05 | RL-1, J |
| Manganese | EPA 6010B | 5J17082 | 3.5 | 4.4 | 610 | 4 | 10/17/05 | 10/20/05 | |
| Mercury | EPA 7471A | 5J20062 | 0.0033 | 0.022 | 0.0053 | 1 | 10/20/05 | 10/20/05 | J |
| Molybdenum | EPA 6010B | 5J17082 | 0.88 | 8.8 | ND | 4 | 10/17/05 | 10/20/05 | RL-1 |
| Nickel | EPA 6010B | 5J17082 | 0.88 | 8.8 | 7.0 | 4 | 10/17/05 | 10/20/05 | RL-1, J |
| Potassium | EPA 6010B | 5J17082 | 180 | 220 | 58000 | 4 | 10/17/05 | 10/20/05 | |
| Selenium | EPA 6010B | 5J17082 | 4.4 | 8.8 | ND | 4 | 10/17/05 | 10/20/05 | RL-1 |
| Silver | EPA 6010B | 5J17082 | 1.8 | 4.4 | ND | 4 | 10/17/05 | 10/20/05 | RL-1 |
| Sodium | EPA 6010B | 5J17082 | 66 | 220 | 1000 | 4 | 10/17/05 | 10/20/05 | |
| Thallium | EPA 6010B | 5J17082 | 3.5 | 44 | ND | 4 | 10/17/05 | 10/20/05 | RL-1 |
| Vanadium | EPA 6010B | 5J17082 | 1.3 | 4.4 | 8.4 | 4 | 10/17/05 | 10/20/05 | |
| Zinc | EPA 6010B | 5J17082 | 6.6 | 22 | 64 | 4 | 10/17/05 | 10/20/05 | B-1 |
| Zirconium | EPA 6010B | 5J18069 | 3.3 | 55 | ND | 2 | 10/18/05 | 10/22/05 | RL-1 |

mm 1/25/06

Rev 1

mm 2/22/06

Rev 3

Del Mar Analytical, Irvine
 Michele Harper
 Project Manager

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IOJ0896 <Page 5 of 18>



Del Mar Analytical

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MWH-San Diego
 9444 Farnham Street, Suite 300
 San Diego, CA 92123
 Attention: Lisa J. Tucker

Project ID: Ash samples - RFI
 Boeing SSFL
 Report Number: IOJ0896

Sampled: 10/13/05
 Received: 10/13/05

METALS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--------------------------------------|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| Sample ID: IOJ0896-06 (WL021 - Soil) | | | | | | | | | |
| Reporting Units: mg/kg dry | | | | | | | | | |
| Aluminum | EPA 6010B | 5J17082 | 10 | 21 | 12000 | 2 | 10/17/05 | 10/19/05 | |
| Antimony | EPA 6010B | 5J17082 | 1.7 | 21 | ND | 2 | 10/17/05 | 10/19/05 | RL-1 |
| Arsenic | EPA 6010B | 5J17082 | 1.2 | 4.1 | 3.4 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Barium | EPA 6010B | 5J17082 | 1.7 | 2.1 | 59 | 2 | 10/17/05 | 10/19/05 | |
| Beryllium | EPA 6010B | 5J17082 | 0.41 | 1.0 | 0.54 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Boron | EPA 6010B | 5J17082 | 2.1 | 10 | 6.6 | 2 | 10/17/05 | 10/19/05 | B, RL-1, J |
| Cadmium | EPA 6010B | 5J17082 | 0.41 | 1.0 | 0.57 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Chromium | EPA 6010B | 5J17082 | 0.62 | 2.1 | 16 | 2 | 10/17/05 | 10/20/05 | |
| Cobalt | EPA 6010B | 5J17082 | 0.62 | 2.1 | 6.3 | 2 | 10/17/05 | 10/19/05 | |
| Copper | EPA 6010B | 5J17082 | 0.41 | 4.1 | 12 | 2 | 10/17/05 | 10/19/05 | |
| Iron | EPA 6010B | 5J17082 | 3.1 | 10 | 19000 | 2 | 10/17/05 | 10/20/05 | |
| Lead | EPA 6010B | 5J17082 | 0.83 | 4.1 | 9.5 | 2 | 10/17/05 | 10/19/05 | |
| Lithium | EPA 6010B | 5J17082 | 1.9 | 13 | 18 | 2 | 10/17/05 | 10/19/05 | |
| Manganese | EPA 6010B | 5J17082 | 1.7 | 2.1 | 390 | 2 | 10/17/05 | 10/20/05 | |
| Mercury | EPA 7471A | 5J20084 | 0.0031 | 0.021 | 0.011 | 1 | 10/20/05 | 10/20/05 | J |
| Molybdenum | EPA 6010B | 5J17082 | 0.41 | 4.1 | ND | 2 | 10/17/05 | 10/19/05 | RL-1 |
| Nickel | EPA 6010B | 5J17082 | 0.41 | 4.1 | 14 | 2 | 10/17/05 | 10/19/05 | |
| Potassium | EPA 6010B | 5J17082 | 83 | 100 | 3400 | 2 | 10/17/05 | 10/20/05 | |
| Selenium | EPA 6010B | 5J17082 | 2.1 | 4.1 | ND | 2 | 10/17/05 | 10/19/05 | RL-1 |
| Silver | EPA 6010B | 5J17082 | 0.83 | 2.1 | ND | 2 | 10/17/05 | 10/19/05 | RL-1 |
| Sodium | EPA 6010B | 5J17082 | 31 | 100 | 64 | 2 | 10/17/05 | 10/20/05 | RL-1, J |
| Thallium | EPA 6010B | 5J17082 | 1.7 | 21 | 3.3 | 2 | 10/17/05 | 10/19/05 | RL-1, J |
| Vanadium | EPA 6010B | 5J17082 | 0.62 | 2.1 | 27 | 2 | 10/17/05 | 10/19/05 | |
| Zinc | EPA 6010B | 5J17082 | 3.1 | 10 | 51 | 2 | 10/17/05 | 10/19/05 | B-1 |
| Zirconium | EPA 6010B | 5J18069 | 1.6 | 26 | ND | 1 | 10/18/05 | 10/22/05 | |

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IOJ0896 <Page 6 of 18>