# FINAL REPORT FOR SAMPLES FROM THE 216-A-30 CRIB SAMPLING, APRIL 2008

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# 222-S LABORATORY

## FINAL REPORT FOR SAMPLES FROM THE 216-A-30 CRIB SAMPLING, APRIL 2008

## 1.0 INTRODUCTION

One soil sample and a methanol field blank were received at the 222-S Laboratory on April 22, 2008, and assigned to group 222S20080394. The samples were analyzed in accordance with ATL-MP-1011, *ATL Quality Assurance Project Plan for 222-S Laboratory, Statement of Work for ATL/222-S Laboratory Services for 216-A-30 Crib sample Analysis* (SOW), and electronic, written, and verbal communication with the customer. All known deviations from the requirements in these documents are sited in this narrative.

| | |
|---|---|
| Attachment 1 | Data Summary Report |
| Attachment 2 | Spike Recoveries |
| Attachment 3 | Surrogate Recoveries |
| Attachment 4 | Tentatively Identified Compounds (TIC) |
| Attachment 5 | Analysis Date |
| Attachment 6 | Receipt Paperwork |
| Attachment 7 | Correspondence |

## 2.0 SAMPLE RECEIPT AND HANDLING

The samples were collected on March 31, 2008, and delivered to the laboratory on April 22, 2008. The sample custodian was unable to measure the temperature of the samples, since a temperature blank was not included with the sample shipment. The sample cooler contained ice. The samples were refrigerated after receipt.

## 3.0 ANALYTICAL RESULTS

The Data Summary Report, included as Attachment 1, presents the analytical results for the analytes requested in the SOW and the chain of custody. In this attachment the column labeled "A#" indicates the aliquot class or the method used for sample preparation before analysis. Since the only analysis required was volatile organic analysis (VOA) by gas chromatography-mass spectrometry (GC-MS), a direct analysis without any preparation, this column is blank.

### 3.1 HOLDING TIME REPORT

The SOW requested that the laboratory strive to meet the holding times specified in SW-846. Holding times are presented in Table 1. These samples were received 22 days after sampling. The client requested that they be analyzed no later than 28 days after sampling.

**Table 1. Holding Time**

| Client Sample No. | Method | Sampling Date | Analysis Date | Elapsed Time | SW-846 Holding Time |
|---|---|---|---|---|---|
| B1TDF0 | SW846-8260B | 3/31/08 | 4/23/08 | 23 Day | 14 days |
| B1TDF1 | SW846-8260B | 3/31/08 | 4/23/08 | 23 Day | 14 days |

## 3.2 VOLATILE ORGANIC ANALYSIS

Volatile organic analysis was performed on a soil sample preserved with sodium bisulfate (low level) in water, a soil sample preserved with methanol (high level) and a methanol field blank. A laboratory MS and MSD were analyzed. The MS and MSD recoveries and RPD are reported in Attachment 2. Attachment 1 contains the results for all compounds listed on the COC and in the email dated 4/22/2008, except acetonitrile and hexane. Compounds used for spikes in the QC samples are also presented in Attachment 1. All other compounds were reported as TICs, if detected in the samples. There was no indication of acetonitrile or hexane found during the TIC search.

For the low level sample all LCS, MS, and MSD recoveries met the control limits in the SOW. No requested analytes were detected in the method blank. The RPD between the MS and MSD met the required limit in the SOW. All surrogate recoveries were within the required control limits. No required compounds were detected above the calibration range in the low level sample.

The high level sample and the methanol field blank were batched with the low level sample and used the same LCS and method blank. The sample and MSD for the high level sample demonstrated high recoveries for all of surrogates and for most the spikes in the MSD. These samples were reanalyzed and these recoveries showed no improvement. The chemist observed that there was a noticeable difference in the methanol levels in the sample vials with the field sample and the MSD being less than the MS. It is the laboratories opinion that the field sample and the MSD have less methanol than was indicate in the receipt paperwork. This would account for the high recoveries. Additionally, the high recoveries in the MSD caused the RPDs to exceed the 30% requirement in the SOW. The results associated with these recoveries have been flagged with a "c".

The high level sample contained 2-butanone above the estimated quantitation limit. This compound was not found in the low level sample. The methanol field blank contained 2-butanone at the same level. This would indicate that "purge and trap" grade methanol was not used by sampling personnel.

The percent difference (%D) between the calibration curve and the response for the continuing calibration verification standard was within the 20% criteria for all reported analytical results.

Unassigned peaks or TICs were compared to the National Institute of Standards and Technology (NIST) 02, *HP Mass Spectral (compound) Libraries*. The estimated concentration of compounds identified from the NIST library was calculated based on an arbitrary response factor of 1.0. If,

after this comparison, the compounds were not identified, they were reported as "unknown." Summaries of the TICs from the field samples are provided in Attachment 4. Compounds that were identified based on a mass spectral library have an "N" flag.

## 4.0 ANALYTICAL PROCEDURES

Table 2 presents the 222-S Laboratory analytical procedure used to generate the reported results.

**Table 2. Analytical Procedures.**

| Analysis | Method | Analysis Procedure |
|---|---|---|
| VOA GC-MS | SW846-8260B, SW846-5035 | LA-523-118, Rev. F-0 |

## 5.0 REFERENCES

*Statement of Work for ATL/222-S Laboratory Services for 216-A-30 Crib Sample Analysis*, May 1, 2008, Fluor Hanford, Inc., Richland, Washington.

ATL-MP-1011, 2008, *ATL Quality Assurance Project Plan for 222-S Laboratory*, Revision 8, Advanced Technologies and Laboratories International, Inc., Richland, Washington.

Attachment 1

DATA SUMMARY REPORT

## Data Summary of All Results

**Sample Group: 20080394**

**Customer Group or SDG Number: 222S20080394**

**Customer Sample ID: B1TDF0**

**Sample Portion: High Level**

| Sample# R | A# | Analyte | Unit | Standard % | Blank | Result | Duplicate | Average | RPD % | Spk Rec % | Det Limit | Count Err % | Qual Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S08M000030 | | 1,2-Dichloroethylene | ug/kg | n/a | <0.600 | <150 | n/a | n/a | n/a | n/a | 150 | n/a | U |
| S08M000030 | | Xylenes (total) | ug/kg | n/a | <0.620 | <155 | n/a | n/a | n/a | n/a | 155 | n/a | U |
| S08M000030 | | Chloromethane | ug/kg | n/a | <0.620 | <155 | n/a | n/a | n/a | n/a | 155 | n/a | U |
| S08M000030 | | Vinyl chloride | ug/kg | n/a | <0.640 | <160 | n/a | n/a | n/a | n/a | 160 | n/a | U |
| S08M000030 | | Bromomethane | ug/kg | n/a | <0.980 | <245 | n/a | n/a | n/a | n/a | 245 | n/a | U |
| S08M000030 | | Chloroethane | ug/kg | n/a | <1.60 | <400 | n/a | n/a | n/a | n/a | 400 | n/a | U |
| S08M000030 | | 1,1-Dichloroethene | ug/kg | 93.5 | <0.340 | <85.0 | n/a | n/a | n/a | 114 | 85.0 | n/a | Uc |
| S08M000030 | | Acetone | ug/kg | 85.9 | <4.38 | 2.35E+03 | n/a | n/a | n/a | 83.2 | 1.10E+03 | n/a | J |
| S08M000030 | | Carbon disulfide | ug/kg | n/a | <0.300 | <75.0 | n/a | n/a | n/a | n/a | 75.0 | n/a | U |
| S08M000030 | | Methylenechloride | ug/kg | n/a | <0.340 | 142 | n/a | n/a | n/a | n/a | 85.0 | n/a | J |
| S08M000030 | | 1,1-Dichloroethane | ug/kg | n/a | <0.280 | <70.0 | n/a | n/a | n/a | n/a | 70.0 | n/a | U |
| S08M000030 | | 2-Butanone | ug/kg | 94.1 | <2.66 | 7.21E+03 | n/a | n/a | n/a | 93.4 | 665 | n/a | c |
| S08M000030 | | Chloroform | ug/kg | n/a | <0.180 | <45.0 | n/a | n/a | n/a | n/a | 45.0 | n/a | U |
| S08M000030 | | Carbon tetrachloride | ug/kg | n/a | <0.300 | <75.0 | n/a | n/a | n/a | n/a | 75.0 | n/a | U |
| S08M000030 | | Tetrahydrofuran | ug/kg | n/a | <1.17 | <292 | n/a | n/a | n/a | n/a | 292 | n/a | U |
| S08M000030 | | 1,1,1-Trichloroethane | ug/kg | n/a | <0.200 | <50.0 | n/a | n/a | n/a | n/a | 50.0 | n/a | U |
| S08M000030 | | 1-Butanol | ug/kg | 103 | <15.5 | <3.88E+03 | n/a | n/a | n/a | 113 | 3.88E+03 | n/a | U |
| S08M000030 | | Benzene | ug/kg | 98.6 | <0.320 | <80.0 | n/a | n/a | n/a | 111 | 80.0 | n/a | Uc |
| S08M000030 | | 1,2-Dichloroethane | ug/kg | n/a | <0.170 | <42.5 | n/a | n/a | n/a | n/a | 42.5 | n/a | U |
| S08M000030 | | Trichloroethene | ug/kg | 95.2 | <0.300 | <75.0 | n/a | n/a | n/a | 115 | 75.0 | n/a | Uc |
| S08M000030 | | 1,2-Dichloropropane | ug/kg | n/a | <0.400 | <100 | n/a | n/a | n/a | n/a | 100 | n/a | U |
| S08M000030 | | Bromodichloromethane | ug/kg | n/a | <0.140 | <35.0 | n/a | n/a | n/a | n/a | 35.0 | n/a | U |
| S08M000030 | | Hexone | ug/kg | 99.4 | <1.76 | <440 | n/a | n/a | n/a | 94.2 | 440 | n/a | Uc |
| S08M000030 | | cis-1,3-Dichloropropene | ug/kg | n/a | <0.240 | <60.0 | n/a | n/a | n/a | n/a | 60.0 | n/a | U |
| S08M000030 | | Toluene | ug/kg | 95.9 | <0.240 | 60.3 | n/a | n/a | n/a | 99.9 | 60.0 | n/a | Jc |
| S08M000030 | | 2-Hexanone | ug/kg | 97.1 | <1.72 | <430 | n/a | n/a | n/a | 95.8 | 430 | n/a | Uc |
| S08M000030 | | trans-1,3-Dichloropropene | ug/kg | n/a | <0.140 | <35.0 | n/a | n/a | n/a | n/a | 35.0 | n/a | U |
| S08M000030 | | Tetrachloroethene | ug/kg | n/a | <0.400 | <100 | n/a | n/a | n/a | n/a | 100 | n/a | U |
| S08M000030 | | 1,1,2-Trichloroethane | ug/kg | n/a | <0.380 | <95.0 | n/a | n/a | n/a | n/a | 95.0 | n/a | U |
| S08M000030 | | Dibromochloromethane | ug/kg | n/a | <0.260 | <65.0 | n/a | n/a | n/a | n/a | 65.0 | n/a | U |
| S08M000030 | | Ethylbenzene | ug/kg | n/a | <0.240 | <60.0 | n/a | n/a | n/a | n/a | 60.0 | n/a | U |

J - Estimated

U - Less Than Detection Limit

c - RPD Outside Range

## Data Summary of All Results

**Sample Group: 20080394**

**Customer Group or SDG Number: 222S20080394**

**Customer Sample ID: B1TDF0**

**Sample Portion: High Level**

| Sample# | R | A# | Analyte | Unit | Standard % | Blank | Result | Duplicate | Average | RPD % | Spk Rec % | Det Limit | Count Err % | Qual Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S08M000030 | | | Chlorobenzene | ug/kg | 98.3 | <0.220 | <55.0 | n/a | n/a | n/a | 99.9 | 55.0 | n/a | Uc |
| S08M000030 | | | Styrene | ug/kg | n/a | <0.200 | <50.0 | n/a | n/a | n/a | n/a | 50.0 | n/a | U |
| S08M000030 | | | Bromoform | ug/kg | n/a | <0.360 | <90.0 | n/a | n/a | n/a | n/a | 90.0 | n/a | U |
| S08M000030 | | | 1,1,2,2-Tetrachloroethane | ug/kg | n/a | <0.500 | <125 | n/a | n/a | n/a | n/a | 125 | n/a | U |
| S08M000030 | | | 1,2,4-Trichlorobenzene | ug/kg | n/a | <0.340 | <85.0 | n/a | n/a | n/a | n/a | 85.0 | n/a | U |

**Sample Portion: Low Level**

| Sample# | R | A# | Analyte | Unit | Standard % | Blank | Result | Duplicate | Average | RPD % | Spk Rec % | Det Limit | Count Err % | Qual Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S08M000029 | | | Percent water | % | 98.7 | n/a | 7.96 | 6.75 | 7.36 | 16.5 | n/a | 0.0100 | n/a | |
| S08M000029 | | | 1,2-Dichloroethylene | ug/kg | n/a | <0.600 | <0.612 | n/a | n/a | n/a | n/a | 0.612 | n/a | U |
| S08M000029 | | | Xylenes (total) | ug/kg | n/a | <0.620 | <0.633 | n/a | n/a | n/a | n/a | 0.633 | n/a | U |
| S08M000029 | | | Chloromethane | ug/kg | n/a | <0.620 | <0.633 | n/a | n/a | n/a | n/a | 0.633 | n/a | U |
| S08M000029 | | | Vinyl chloride | ug/kg | n/a | <0.640 | <0.653 | n/a | n/a | n/a | n/a | 0.653 | n/a | U |
| S08M000029 | | | Bromomethane | ug/kg | n/a | <0.980 | <1.00 | n/a | n/a | n/a | n/a | 1.00 | n/a | U |
| S08M000029 | | | Chloroethane | ug/kg | n/a | <1.60 | <1.63 | n/a | n/a | n/a | n/a | 1.63 | n/a | U |
| S08M000029 | | | 1,1-Dichloroethene | ug/kg | 93.5 | <0.340 | 1.00 | n/a | n/a | n/a | 92.2 | 0.347 | n/a | J |
| S08M000029 | | | Acetone | ug/kg | 85.9 | <4.38 | <4.47 | n/a | n/a | n/a | 111 | 4.47 | n/a | U |
| S08M000029 | | | Carbon disulfide | ug/kg | n/a | <0.300 | <0.306 | n/a | n/a | n/a | n/a | 0.306 | n/a | U |
| S08M000029 | | | Methylenechloride | ug/kg | n/a | <0.340 | 0.957 | n/a | n/a | n/a | n/a | 0.347 | n/a | J |
| S08M000029 | | | 1,1-Dichloroethane | ug/kg | n/a | <0.280 | <0.286 | n/a | n/a | n/a | n/a | 0.286 | n/a | U |
| S08M000029 | | | 2-Butanone | ug/kg | 94.1 | <2.66 | <2.71 | n/a | n/a | n/a | 126 | 2.71 | n/a | U |
| S08M000029 | | | Chloroform | ug/kg | n/a | <0.180 | <0.184 | n/a | n/a | n/a | n/a | 0.184 | n/a | U |
| S08M000029 | | | Carbon tetrachloride | ug/kg | n/a | <0.300 | <0.306 | n/a | n/a | n/a | n/a | 0.306 | n/a | U |
| S08M000029 | | | Tetrahydrofuran | ug/kg | n/a | <1.17 | <1.19 | n/a | n/a | n/a | n/a | 1.19 | n/a | U |
| S08M000029 | | | 1,1,1-Trichloroethane | ug/kg | n/a | <0.200 | <0.204 | n/a | n/a | n/a | n/a | 0.204 | n/a | U |
| S08M000029 | | | 1-Butanol | ug/kg | 103 | <15.5 | <15.9 | n/a | n/a | n/a | 112 | 15.9 | n/a | U |
| S08M000029 | | | Benzene | ug/kg | 98.6 | <0.320 | <0.327 | n/a | n/a | n/a | 110 | 0.327 | n/a | U |
| S08M000029 | | | 1,2-Dichloroethane | ug/kg | n/a | <0.170 | <0.173 | n/a | n/a | n/a | n/a | 0.173 | n/a | U |
| S08M000029 | | | Trichloroethene | ug/kg | 95.2 | <0.300 | <0.306 | n/a | n/a | n/a | 99.5 | 0.306 | n/a | U |
| S08M000029 | | | 1,2-Dichloropropane | ug/kg | n/a | <0.400 | <0.408 | n/a | n/a | n/a | n/a | 0.408 | n/a | U |
| S08M000029 | | | Bromodichloromethane | ug/kg | n/a | <0.140 | <0.143 | n/a | n/a | n/a | n/a | 0.143 | n/a | U |

J - Estimated

U - Less Than Detection Limit

c - RPD Outside Range

## Data Summary of All Results

**Sample Group: 20080394**

**Customer Group or SDG Number: 222S20080394**

**Customer Sample ID: B1TDF0**

**Sample Portion: Low Level**

| Sample# R | A# | Analyte | Unit | Standard % | Blank | Result | Duplicate | Average | RPD % | Spk Rec % | Det Limit | Count Err % | Qual Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S08M000029 | | Hexone | ug/kg | 99.4 | <1.76 | <1.80 | n/a | n/a | n/a | 129 | 1.80 | n/a | U |
| S08M000029 | | cis-1,3-Dichloropropene | ug/kg | n/a | <0.240 | <0.245 | n/a | n/a | n/a | n/a | 0.245 | n/a | U |
| S08M000029 | | Toluene | ug/kg | 95.9 | <0.240 | 0.617 | n/a | n/a | n/a | 98.6 | 0.245 | n/a | J |
| S08M000029 | | 2-Hexanone | ug/kg | 97.1 | <1.72 | <1.76 | n/a | n/a | n/a | 128 | 1.76 | n/a | U |
| S08M000029 | | trans-1,3-Dichloropropene | ug/kg | n/a | <0.140 | <0.143 | n/a | n/a | n/a | n/a | 0.143 | n/a | U |
| S08M000029 | | Tetrachloroethene | ug/kg | n/a | <0.400 | <0.408 | n/a | n/a | n/a | n/a | 0.408 | n/a | U |
| S08M000029 | | 1,1,2-Trichloroethane | ug/kg | n/a | <0.380 | <0.388 | n/a | n/a | n/a | n/a | 0.388 | n/a | U |
| S08M000029 | | Dibromochloromethane | ug/kg | n/a | <0.260 | <0.265 | n/a | n/a | n/a | n/a | 0.265 | n/a | U |
| S08M000029 | | Ethylbenzene | ug/kg | n/a | <0.240 | <0.245 | n/a | n/a | n/a | n/a | 0.245 | n/a | U |
| S08M000029 | | Chlorobenzene | ug/kg | 98.3 | <0.220 | <0.224 | n/a | n/a | n/a | 96.6 | 0.224 | n/a | U |
| S08M000029 | | Styrene | ug/kg | n/a | <0.200 | <0.204 | n/a | n/a | n/a | n/a | 0.204 | n/a | U |
| S08M000029 | | Bromoform | ug/kg | n/a | <0.360 | <0.367 | n/a | n/a | n/a | n/a | 0.367 | n/a | U |
| S08M000029 | | 1,1,2,2-Tetrachloroethane | ug/kg | n/a | <0.500 | <0.510 | n/a | n/a | n/a | n/a | 0.510 | n/a | U |
| S08M000029 | | 1,2,4-Trichlorobenzene | ug/kg | n/a | <0.340 | <0.347 | n/a | n/a | n/a | n/a | 0.347 | n/a | U |



222S20080394

J - Estimated

U - Less Than Detection Limit

c - RPD Outside Range

## Data Summary of All Results

**Sample Group: 20080394**

**Customer Group or SDG Number: 222S20080394**

**Customer Sample ID: B1TDF1**

**Sample Portion: Methanol Blank**

| Sample# | R | A# | Analyte | Unit | Standard % | Blank | Result | Duplicate | Average | RPD % | Spk Rec % | Det Limit | Count Err % | Qual Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S08M000031 | | | 1,2-Dichloroethylene | ug/L | n/a | <0.600 | <150 | n/a | n/a | n/a | n/a | 150 | n/a | U |
| S08M000031 | | | Xylenes (total) | ug/L | n/a | <0.620 | <155 | n/a | n/a | n/a | n/a | 155 | n/a | U |
| S08M000031 | | | Chloromethane | ug/L | n/a | <0.620 | <155 | n/a | n/a | n/a | n/a | 155 | n/a | U |
| S08M000031 | | | Vinyl chloride | ug/L | n/a | <0.640 | <160 | n/a | n/a | n/a | n/a | 160 | n/a | U |
| S08M000031 | | | Bromomethane | ug/L | n/a | <0.980 | <245 | n/a | n/a | n/a | n/a | 245 | n/a | U |
| S08M000031 | | | Chloroethane | ug/L | n/a | <1.60 | <400 | n/a | n/a | n/a | n/a | 400 | n/a | U |
| S08M000031 | | | 1,1-Dichloroethene | ug/L | 93.5 | <0.340 | <85.0 | n/a | n/a | n/a | n/a | 85.0 | n/a | U |
| S08M000031 | | | Acetone | ug/L | 85.9 | <4.38 | 2.21E+03 | n/a | n/a | n/a | n/a | 1.10E+03 | n/a | J |
| S08M000031 | | | Carbon disulfide | ug/L | n/a | <0.300 | <75.0 | n/a | n/a | n/a | n/a | 75.0 | n/a | U |
| S08M000031 | | | Methylenechloride | ug/L | n/a | <0.340 | 126 | n/a | n/a | n/a | n/a | 85.0 | n/a | J |
| S08M000031 | | | 1,1-Dichloroethane | ug/L | n/a | <0.280 | <70.0 | n/a | n/a | n/a | n/a | 70.0 | n/a | U |
| S08M000031 | | | 2-Butanone | ug/L | 94.1 | <2.66 | 7.20E+03 | n/a | n/a | n/a | n/a | 665 | n/a | |
| S08M000031 | | | Chloroform | ug/L | n/a | <0.180 | <45.0 | n/a | n/a | n/a | n/a | 45.0 | n/a | U |
| S08M000031 | | | Carbon tetrachloride | ug/L | n/a | <0.300 | <75.0 | n/a | n/a | n/a | n/a | 75.0 | n/a | U |
| S08M000031 | | | Tetrahydrofuran | ug/L | n/a | <1.17 | <292 | n/a | n/a | n/a | n/a | 292 | n/a | U |
| S08M000031 | | | 1,1,1-Trichloroethane | ug/L | n/a | <0.200 | <50.0 | n/a | n/a | n/a | n/a | 50.0 | n/a | U |
| S08M000031 | | | 1-Butanol | ug/L | 103 | <15.5 | <3.88E+03 | n/a | n/a | n/a | n/a | 3.88E+03 | n/a | U |
| S08M000031 | | | Benzene | ug/L | 98.6 | <0.320 | <80.0 | n/a | n/a | n/a | n/a | 80.0 | n/a | U |
| S08M000031 | | | 1,2-Dichloroethane | ug/L | n/a | <0.170 | <42.5 | n/a | n/a | n/a | n/a | 42.5 | n/a | U |
| S08M000031 | | | Trichloroethene | ug/L | 95.2 | <0.300 | <75.0 | n/a | n/a | n/a | n/a | 75.0 | n/a | U |
| S08M000031 | | | 1,2-Dichloropropane | ug/L | n/a | <0.400 | <100 | n/a | n/a | n/a | n/a | 100 | n/a | U |
| S08M000031 | | | Bromodichloromethane | ug/L | n/a | <0.140 | <35.0 | n/a | n/a | n/a | n/a | 35.0 | n/a | U |
| S08M000031 | | | Hexone | ug/L | 99.4 | <1.76 | <440 | n/a | n/a | n/a | n/a | 440 | n/a | U |
| S08M000031 | | | cis-1,3-Dichloropropene | ug/L | n/a | <0.240 | <60.0 | n/a | n/a | n/a | n/a | 60.0 | n/a | U |
| S08M000031 | | | Toluene | ug/L | 95.9 | <0.240 | 64.9 | n/a | n/a | n/a | n/a | 60.0 | n/a | J |
| S08M000031 | | | 2-Hexanone | ug/L | 97.1 | <1.72 | <430 | n/a | n/a | n/a | n/a | 430 | n/a | U |
| S08M000031 | | | trans-1,3-Dichloropropene | ug/L | n/a | <0.140 | <35.0 | n/a | n/a | n/a | n/a | 35.0 | n/a | U |
| S08M000031 | | | Tetrachloroethene | ug/L | n/a | <0.400 | <100 | n/a | n/a | n/a | n/a | 100 | n/a | U |
| S08M000031 | | | 1,1,2-Trichloroethane | ug/L | n/a | <0.380 | <95.0 | n/a | n/a | n/a | n/a | 95.0 | n/a | U |
| S08M000031 | | | Dibromochloromethane | ug/L | n/a | <0.260 | <65.0 | n/a | n/a | n/a | n/a | 65.0 | n/a | U |
| S08M000031 | | | Ethylbenzene | ug/L | n/a | <0.240 | <60.0 | n/a | n/a | n/a | n/a | 60.0 | n/a | U |

J - Estimated

U - Less Than Detection Limit

c - RPD Outside Range

## Data Summary of All Results

**Sample Group: 20080394**

**Customer Group or SDG Number: 222S20080394**

**Customer Sample ID: B1TDF1**

**Sample Portion: Methanol Blank**

| Sample# | R | A# | Analyte | Unit | Standard % | Blank | Result | Duplicate | Average | RPD % | Spk Rec % | Det Limit | Count Err % | Qual Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S08M000031 | | | Chlorobenzene | ug/L | 98.3 | <0.220 | <55.0 | n/a | n/a | n/a | n/a | 55.0 | n/a | U |
| S08M000031 | | | Styrene | ug/L | n/a | <0.200 | <50.0 | n/a | n/a | n/a | n/a | 50.0 | n/a | U |
| S08M000031 | | | Bromoform | ug/L | n/a | <0.360 | <90.0 | n/a | n/a | n/a | n/a | 90.0 | n/a | U |
| S08M000031 | | | 1,1,2,2-Tetrachloroethane | ug/L | n/a | <0.500 | <125 | n/a | n/a | n/a | n/a | 125 | n/a | U |
| S08M000031 | | | 1,2,4-Trichlorobenzene | ug/L | n/a | <0.340 | <85.0 | n/a | n/a | n/a | n/a | 85.0 | n/a | U |





J - Estimated

U - Less Than Detection Limit

c - RPD Outside Range

Attachment 2

SPIKE RECOVERIES

## SPIKE RECOVERIES

| QC Type | Parent Sample | Compound | Spike Amount | Amount Recovered | Units | % Recovery | MS/MSD RPD |
|---|---|---|---|---|---|---|---|
| LCS | | 1,1-Dichloroethene | 10.000 | 9.353 | ug/Kg | 93.530 | |
| LCS | | Acetone | 60.000 | 51.536 | ug/Kg | 85.893 | |
| LCS | | 2-Butanone | 60.000 | 56.479 | ug/Kg | 94.132 | |
| LCS | | 1-Butanol | 120.000 | 123.750 | ug/Kg | 103.120 | |
| LCS | | Benzene | 10.000 | 9.857 | ug/Kg | 98.570 | |
| LCS | | Trichloroethene | 10.000 | 9.521 | ug/Kg | 95.210 | |
| LCS | | 4-Methyl-2-pentanone | 60.000 | 59.646 | ug/Kg | 99.410 | |
| LCS | | Toluene | 10.000 | 9.586 | ug/Kg | 95.860 | |
| LCS | | 2-Hexanone | 60.000 | 58.241 | ug/Kg | 97.068 | |
| LCS | | Chlorobenzene | 10.000 | 9.828 | ug/Kg | 98.280 | |
| MS | S08M000029 | 1,1-Dichloroethene | 9.259 | 9.543 | ug/Kg | 92.221 | |
| MS | S08M000029 | Acetone | 55.556 | 61.403 | ug/Kg | 110.530 | |
| MS | S08M000029 | 2-Butanone | 55.556 | 70.107 | ug/Kg | 126.190 | |
| MS | S08M000029 | 1-Butanol | 111.111 | 124.990 | ug/Kg | 112.490 | |
| MS | S08M000029 | Benzene | 9.259 | 10.187 | ug/Kg | 110.020 | |
| MS | S08M000029 | Trichloroethene | 9.259 | 9.216 | ug/Kg | 99.533 | |
| MS | S08M000029 | 4-Methyl-2-pentanone | 55.556 | 71.551 | ug/Kg | 128.790 | |
| MS | S08M000029 | Toluene | 9.259 | 9.742 | ug/Kg | 98.550 | |
| MS | S08M000029 | 2-Hexanone | 55.556 | 71.257 | ug/Kg | 128.260 | |
| MS | S08M000029 | Chlorobenzene | 9.259 | 8.946 | ug/Kg | 96.617 | |
| MSD | S08M000029 | 1,1-Dichloroethene | 8.621 | 9.051 | ug/Kg | 93.345 | 1.211 |
| MSD | S08M000029 | Acetone | 51.724 | 51.466 | ug/Kg | 99.501 | 10.502 |
| MSD | S08M000029 | 2-Butanone | 51.724 | 55.892 | ug/Kg | 108.060 | 15.479 |
| MSD | S08M000029 | 1-Butanol | 103.448 | 94.191 | ug/Kg | 91.051 | 21.066 |
| MSD | S08M000029 | Benzene | 8.621 | 8.427 | ug/Kg | 97.753 | 11.808 |
| MSD | S08M000029 | Trichloroethene | 8.621 | 8.224 | ug/Kg | 95.398 | 4.243 |
| MSD | S08M000029 | 4-Methyl-2-pentanone | 51.724 | 59.604 | ug/Kg | 115.230 | 11.114 |
| MSD | S08M000029 | Toluene | 8.621 | 8.536 | ug/Kg | 91.860 | 7.027 |
| MSD | S08M000029 | 2-Hexanone | 51.724 | 62.337 | ug/Kg | 120.520 | 6.222 |
| MSD | S08M000029 | Chlorobenzene | 8.621 | 8.003 | ug/Kg | 92.835 | 3.993 |
| MS | S08M000030 | 1,1-Dichloroethene | 2358.490 | 2682.400 | ug/Kg | 113.730 | |
| MS | S08M000030 | Acetone | 14150.940 | 14125.000 | ug/Kg | 83.209 | |
| MS | S08M000030 | 2-Butanone | 14150.940 | 20427.000 | ug/Kg | 93.372 | |
| MS | S08M000030 | 1-Butanol | 28301.880 | 31964.000 | ug/Kg | 112.940 | |
| MS | S08M000030 | Benzene | 2358.490 | 2610.700 | ug/Kg | 110.690 | |
| MS | S08M000030 | Trichloroethene | 2358.490 | 2712.900 | ug/Kg | 115.030 | |
| MS | S08M000030 | 4-Methyl-2-pentanone | 14150.940 | 13334.000 | ug/Kg | 94.227 | |
| MS | S08M000030 | Toluene | 2358.490 | 2416.800 | ug/Kg | 99.915 | |
| MS | S08M000030 | 2-Hexanone | 14150.940 | 13552.000 | ug/Kg | 95.767 | |
| MS | S08M000030 | Chlorobenzene | 2358.490 | 2356.700 | ug/Kg | 99.924 | |
| MSD | S08M000030 | 1,1-Dichloroethene | 2358.490 | 3811.000 | ug/Kg | 161.590 | 34.767 |
| MSD | S08M000030 | Acetone | 14150.940 | 17843.000 | ug/Kg | 109.480 | 27.268 |
| MSD | S08M000030 | 2-Butanone | 14150.940 | 25660.000 | ug/Kg | 130.350 | 33.057 |
| MSD | S08M000030 | 1-Butanol | 28301.880 | 42086.000 | ug/Kg | 148.700 | 27.335 |
| MSD | S08M000030 | Benzene | 2358.490 | 3714.100 | ug/Kg | 157.480 | 34.896 |
| MSD | S08M000030 | Trichloroethene | 2358.490 | 3745.800 | ug/Kg | 158.820 | 31.981 |
| MSD | S08M000030 | 4-Methyl-2-pentanone | 14150.940 | 20420.000 | ug/Kg | 144.300 | 41.985 |
| MSD | S08M000030 | Toluene | 2358.490 | 3645.900 | ug/Kg | 152.030 | 41.370 |
| MSD | S08M000030 | 2-Hexanone | 14150.940 | 20087.000 | ug/Kg | 141.950 | 38.855 |
| MSD | S08M000030 | Chlorobenzene | 2358.490 | 3665.300 | ug/Kg | 155.410 | 43.462 |

Attachment 3

SURROGATE RECOVERIES

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: A30_CRIB_SOIL

Level: (low/med) LOW

| | EPA SAMPLE NO. | SMC1 # | SMC2 (DCE) # | SMC3 (TOL) # | OTHER (BFB) # | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | CCB_LOW | 116 | 125 | 105 | 110 | 0 |
| 02 | LCS_LOW | 101 | 109 | 94 | 101 | 0 |
| 03 | S08M000029 | 108 | 110 | 102 | 106 | 0 |
| 04 | S08M000029MS | 100 | 110 | 94 | 108 | 0 |
| 05 | S08M000029MS | 96 | 98 | 90 | 100 | 0 |
| 06 | | | | | | |
| 07 | | | | | | |
| 08 | | | | | | |
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| 30 | | | | | | |

| | | QC LIMITS |
|---|---|---|
| SMC1 | = Dibromofluoromethane | (70-130) |
| SMC2 (DCE) | = 1,2-Dichloroethane-d4 | (70-130) |
| SMC3 (TOL) | = Toluene-d8 | (70-130) |
| OTHER (BFB) | = Bromofluorobenzene | (70-130) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: A30_CRIB_SOIL

Level: (low/med) MED

| | EPA SAMPLE NO. | SMC1 # | SMC2 (DCE) # | SMC3 (TOL) # | OTHER (BFB) # | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | S08M000030 | 192* | 175* | 194* | 201* | 4 |
| 02 | S08M000030MS | 111 | 121 | 100 | 107 | 0 |
| 03 | S08M000030MS | 158* | 156* | 153* | 162* | 4 |
| 04 | S08M000031 | 108 | 98 | 101 | 103 | 0 |
| 05 | | | | | | |
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| 30 | | | | | | |

| | | QC LIMITS |
|---|---|---|
| SMC1 | = Dibromofluoromethane | (70-130) |
| SMC2 (DCE) | = 1,2-Dichloroethane-d4 | (70-130) |
| SMC3 (TOL) | = Toluene-d8 | (70-130) |
| OTHER (BFB) | = Bromofluorobenzene | (70-130) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

Attachment 4

TENTATIVELY IDENTIFIED COMPOUNDS

# TENTATIVELY IDENTIFIED COMPOUND REPORT

## TIC from Volatile Organic Compound Analysis

### B1TDF0 High Level

| Lab Sample ID | QC Type | Analyte | CAS No. | Retentin time (Minutes) | Unit | Result | Qual Flags |
|---|---|---|---|---|---|---|---|
| S08M000030 | Sample | Undecane | 1120-21-4 | 16.35 | ug/kg | 510 | JNT |

### B1TDF0 Low Level

| Lab Sample ID | QC Type | Analyte | CAS No. | Retentin time (Minutes) | Unit | Result | Qual Flags |
|---|---|---|---|---|---|---|---|
| S08M000029 | Sample | Unknown-1 | | 5.08 | ug/kg | 1.90 | JT |
| S08M000029 | Sample | 1,1-Dichloro-1-fluoroe | 1717-00-6 | 7.05 | ug/kg | 4.07 | JNT |
| S08M000029 | Sample | Unknown-2 | | 14.84 | ug/kg | 2.92 | JT |

### B1TDF1 Methanol Blank

| Lab Sample ID | QC Type | Analyte | CAS No. | Retentin time (Minutes) | Unit | Result | Qual Flags |
|---|---|---|---|---|---|---|---|
| S08M000031 | Sample | Unknown-1 | | 12.22 | ug/L | 256 | JT |
| S08M000031 | Sample | Undecane | 1120-21-4 | 16.35 | ug/L | 611 | JNT |

J - Estimated

N - Named TIC

T - Tentatively Identified Compound

Attachment 5

ANALYSIS DATE

# ANALYSIS DATE REPORT

| Customer Sample ID | Lab Sample ID | Analysis | Analysis Date |
|---|---|---|---|
| B1TDF0 | S08T000029 | VOA | 4/23/2008 |
| B1TDF0 | S08T000029 | % Moisture | 5/6/2008 |
| B1TDF0 | S08T000030 | VOA | 4/23/2008 |
| B1TDF1 | S08T000031 | VOA | 4/23/2008 |

Attachment 6

RECEIPT PAPERWORK

| Fluor Hanford Inc. | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F08-043-141 | PAGE 1 OF 1 |
|---|---|---|---|---|---|
| **COLLECTOR**<br>NCO Sampler WEBB, KELLER, HERRICK | **COMPANY CONTACT**<br>TRENT, SJ | **TELEPHONE NO.**<br>373-5869 | **PROJECT COORDINATOR**<br>WIDRIG, DL | **PRICE CODE** 8N<br>**AIR QUALITY** ☐ | **DATA TURNAROUND**<br>45 Days / 45 Days |
| **SAMPLING LOCATION**<br>C5941, I-049 | **PROJECT DESIGNATION**<br>216-A-30 Crib Sampling | | **SAF NO.**<br>F08-043 | | |
| **ICE CHEST NO.** | **FIELD LOGBOOK NO.**<br>HNF-N-585 2 | **ACTUAL SAMPLE DEPTH**<br>172.5'-175' | **COA**<br>123215ES20 | **METHOD OF SHIPMENT**<br>GOVERNMENT VEHICLE | |
| **SHIPPED TO**<br>Waste Sampling & Characterization 2225 td 4/22/08 | **OFFSITE PROPERTY NO.**<br>N/A | | **BILL OF LADING/AIR BILL NO.**<br>N/A | | |

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegitation
W=Water
WI=Wipe
X=Other

**POSSIBLE SAMPLE HAZARDS/ REMARKS**
Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

**SPECIAL HANDLING AND/OR STORAGE**
Radioactive tie to B1TDB8
222520080394

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRESERVATION** | Cool~4C | | | | | | | | | | | | | | | |
| **TYPE OF CONTAINER** | aGs* | | | | | | | | | | | | | | | |
| **NO. OF CONTAINER(S)** | 1 | | | | | | | | | | | | | | | |
| **VOLUME** | 40mL | | | | | | | | | | | | | | | |
| **SAMPLE ANALYSIS** | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | | | | | | | | | | | | | | | |
| **SAMPLE NO.** | **MATRIX*** | **SAMPLE DATE** | **SAMPLE TIME** | | | | | | | | | | | | | |
| B1TDF1 W0862010453 | SOIL | 3-31-08 | 1070 | X | | | | | | | | | | | | |
| 508M000031 | | | | | | | | | | | | | | | | |
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| | | | | 6215060 | | | | | | | | | | | | |

ICED

222S20080394

20

| CHAIN OF POSSESSION | | SIGN/ PRINT NAMES | |
|---|---|---|---|
| **RELINQUISHED BY/REMOVED FROM** | **DATE/TIME** | **RECEIVED BY/STORED IN** | **DATE/TIME** |
| DW Keller/DWKeller | 3-31-08/1104 | MO 509 FRIDGE | 3-31-08/1104 |
| **RELINQUISHED BY/REMOVED FROM** | **DATE/TIME** | **RECEIVED BY/STORED IN** | **DATE/TIME** |
| MO509 Ref | 4-15-08 1200 | D. Parchen | 4-15-08 1200 |
| **RELINQUISHED BY/REMOVED FROM** | **DATE/TIME** | **RECEIVED BY/STORED IN** | **DATE/TIME** |
| D. Parchen | 4-15-08 1430 | Victor J Sund | 4/15/08 1430 |
| **RELINQUISHED BY/REMOVED FROM** | **DATE/TIME** | **RECEIVED BY/STORED IN** | **DATE/TIME** |
| JA KNAZIAN | 4/22/08 1255 | D.R.W. Williamson | 4/22/08 1255 |
| **RELINQUISHED BY/REMOVED FROM** | **DATE/TIME** | **RECEIVED BY/STORED IN** | **DATE/TIME** |
| D.R.W. Williamson | 4/24/08 1430 | | 4.27.08 1430 |
| **RELINQUISHED BY/REMOVED FROM** | **DATE/TIME** | **RECEIVED BY/STORED IN** | **DATE/TIME** |
| | | | |
| **RELINQUISHED BY/REMOVED FROM** | **DATE/TIME** | **RECEIVED BY/STORED IN** | **DATE/TIME** |
| | | | |

**SPECIAL INSTRUCTIONS**
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.** All VOA samples will be collected using EPA Method 5035A. (1)VOA - 5035/8260 (TCL); VOA - 5035/8260 - (Add-On) {Acetonitrile, Hexane, Tetrahydrofuran}

| | | | |
|---|---|---|---|
| **LABORATORY SECTION** | **RECEIVED BY** | **TITLE** | **DATE/TIME** |
| **FINAL SAMPLE DISPOSITION** | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME** |

A-6003-618(01/06)

| Fluor Hanford Inc. | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F08-043-140 | PAGE 1 OF 2 |
|---|---|---|---|---|---|
| **COLLECTOR** NCO Sampler WOBB, KAUER, HERZICK | **COMPANY CONTACT** TRENT, SJ | **TELEPHONE NO.** 373-5869 | **PROJECT COORDINATOR** WIDRIG, DL | **PRICE CODE** 8N | **DATA TURNAROUND** |
| **SAMPLING LOCATION** C5941, I-049 | **PROJECT DESIGNATION** 216-A-30 Crib Sampling | | **SAF NO.** F08-043 | **AIR QUALITY** ☐ | 45 Days / 45 Days |
| **ICE CHEST NO.** 6WS-1 | **FIELD LOGBOOK NO.** HNF-N-585 2 | **ACTUAL SAMPLE DEPTH** 122.5' - 125' | **COA** 123215ES20 | **METHOD OF SHIPMENT** GOVERNMENT VEHICLE | |
| **SHIPPED TO** Waste Sampling & Characterization 2225 Td 4-22-08 | **OFFSITE PROPERTY NO.** N/A | | **BILL OF LADING/AIR BILL NO.** N/A | | |

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegitation
W=Water
WI=Wipe
X=Other

**POSSIBLE SAMPLE HAZARDS/ REMARKS**
Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

**SPECIAL HANDLING AND/OR STORAGE**
Radioactive tie to B1TDB8
222S20080394

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRESERVATION** | Cool <-7C and >-20C | MEOH/Cool~4 C | | | | | | | | | | | | | | | |
| **TYPE OF CONTAINER** | aGs* | aGs* | | | | | | | | | | | | | | | |
| **NO. OF CONTAINER(S)** | 5 | 3 | | | | | | | | | | | | | | | |
| **VOLUME** | 40mL | 40mL | | | | | | | | | | | | | | | |
| **SAMPLE ANALYSIS** | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | | | | | | | | | | | | | | | |

ICED

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B1TDF0 W05620 1047 | SOIL | 3-31-08 | 1020 | X | X | | | | | | | | | | | | |
| S08M000027 | | | | | | | | | | | | | | | | | |
| ↓ 30 | | | | | | | | | | | | | | | | | |
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| | | | | 6215060 | | | | | | | | | | | | | |

**CHAIN OF POSSESSION**

| SIGN/ PRINT NAMES | | | |
|---|---|---|---|
| **RELINQUISHED BY/REMOVED FROM** | **DATE/TIME** | **RECEIVED BY/STORED IN** | **DATE/TIME** |
| DW Webb/DW Webb | 3-31-08/1104 | MO 509 FRIDGE | 3-31-08/1104 |
| MO 509 | 4-15-08 | D. Pancheau | 4-15-08 |
| D. Pancheau | 4-15-08 | Victor Bivins | 4/15/08 1420 |
| [illegible] | 4/22/08 | D.R. Williamson | 4/22/08 1255 |
| D.R. Williamson | 4/22/08 1430 | [illegible] | 4-22-08 14:30 |
| | | | |
| | | | |

**SPECIAL INSTRUCTIONS**

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.** All VOA samples will be collected using EPA Method 5035A.** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample. ** The laboratory is to use one of the low level VOA bottles for moisture content determination.** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
(1)VOA - 5035/8260 (LOW LEVEL); VOA - 5035/8260 (LOW LEVEL) - (Add-On) {Acetonitrile, Hexane, Tetrahydrofuran}
(2)VOA - 5035/8260 (HIGH LEVEL); VOA - 5035/8260 (HIGH LEVEL) - (Add-On) {Acetonitrile, Hexane, Tetrahydrofuran}

| | | | |
|---|---|---|---|
| **LABORATORY SECTION** | **RECEIVED BY** | **TITLE** | **DATE/TIME** |
| **FINAL SAMPLE DISPOSITION** | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME** |

A-6003-618(01/06)

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222S20080394

# SAMPLE RECORD SHEET

| Sample Number | Sample Suffix[1] | Empty Weight[2] (g) | Weight with Sample[3] (g) | Weight of Sample[4] (g) | Methanol Added (g) | Methanol Added (mL) | Weight of Methanol and Sample |
|---|---|---|---|---|---|---|---|
| BITDF0 | K | 30.8 | 35.7 | 4.9 | --- | --- | --- |
| | L | 31.1 | 36.5 | 5.4 | --- | --- | --- |
| | M | 30.7 | 36.5 | 5.8 | --- | --- | --- |
| | N | 30.6 | 36.0 | 5.4 | --- | --- | --- |
| ↓ | P | 30.6 | 36.0 | 5.4 | --- | --- | --- |
| BITDF1 | | 29.6 | 29.6 | — | ~~28.6~~ 4.0 | 5.0 | 33.6 |
| BITDF0 | W | 29.6 | 35.1 | 5.5 | 4.4 | 5.5 | 39.5 |
| | X | 29.4 | 34.7 | 5.3 | 4.4 | 5.5 | 39.1 |
| ↓ | Y | 29.9 | 35.2 | 5.3 | 4.4 | 5.5 | 39.6 |

[1]Sample suffix of L, K, M, N and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7C and -20C.
Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

[2]Empty weight is to include all labels, stickers, bags, and anything else that will be associated with the bottle when it is weighed with the sample.
[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.
[4]Sample weight is the vial with sample minus the vial empty

Using Fischer MeOH.

Attachment 7

CORRESPONDENCE

## Ritenour, Gerald P

**From:** Trent, Stephen J
**Sent:** Tuesday, April 22, 2008 3:52 PM
**To:** Ritenour, Gerald P
**Subject:** Analytical Lists.xls

**Attachments:** Analytical Lists.xls

Analytical Lists.xls
(34 KB)