DATA REVIEW FOR

MCKESSON - BEAR STREET SITE

SDG# BEL0415

VOLATILE AND
SEMIVOLATILE ANALYSES

Analyses performed by:

Buck Environmental Laboratories
Cortland, New York

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
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Summary

The following is an assessment of the data package for SDG # BEL0415 for sampling at the McKesson - Bear Street Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis Method		
				8260[1]	8015[2]	8270[3]
DUP-2	0406228-04A	water	6/16/04	x	x	x
MW-17R	0406231-02A	water	6/17/04	x	x	x
MW-18	0406231-07A	water	6/17/04	x	x	x
MW-19	0406244-02A	water	6/18/04	x	x	x
MW-23I	0406231-06A	water	6/17/04	x	x	x
MW-23S	0406231-05A	water	6/17/04	x	x	x
MW-24SR	0406231-08A	water	6/17/04	x	x	x
MW-25D	0406231-04A	water	6/17/04	x	x	x
MW-25S	0406231-03A	water	6/17/04	x	x	x
MW-28[4]	0406228-01A	water	6/16/04	x	x	x
MW-30	0406231-01A	water	6/17/04	x	x	x
PZ-4D	0406244-03A	water	6/18/04	x	x	x
PZ-5D	0406244-01A	water	6/18/04	x	x	x
PZ-4S	0406244-04A	water	6/18/04	x	x	x
VOC Trip Blank-1	0406228-05A	water	6/16/04	x		
VOC Trip Blank-2	0406231-09A	water	6/17/04	x		
VOC Trip Blank-3	0406244-05A	water	6/18/04	x		
Alcohol Trip Blank-1	0406228-06A	water	6/16/04		x	
Alcohol Trip Blank-2	0406231-10A	water	6/17/04		x	
Alcohol Trip Blank-3	0406244-06A	water	6/18/04		x	

1 VOC analyses for: methylene chloride, acetone, trichloroethene, benzene, toluene, ethylbenzene, and xylenes
2 Alcohol analyses for: methanol
3 compounds include: aniline and N,N'-dimethylaniline
4 MS/MSD analyses performed on sample

VOLATILE ANALYSES

METHOD 8260

Introduction

Analyses were performed according to USEPA method 8260 as referenced in the NYSDEC ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC test, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding time for volatile analyses under the Quality Assurance Project Plan (QAPP) is 7 days from sample receipt.

All samples were analyzed within the specified holding time.

2. Blank Contamination

Quality assurance blanks (i.e., method, trip, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment. Field and rinse blanks measure contamination of samples during field operations.

No target compounds were detected in the method or trip blanks.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies various percent relative standard deviation (%RSD) limits for select compounds and allows two outliers. A technical review of the data applies a RSD limit of 30% to all compounds with no exceptions.

The %RSD were less than 30% and the response factors were greater than 0.05 for all compounds.

4.2 Continuing Calibration

All continuing calibration standards were within 25% difference (%D) of the initial calibration, with the following exceptions:

Instrument MSC	9/25/01 10:35	
	Acetone	28.6%

Instrument MSC 9/28/01 10:10

Acetone 32.7%

Since no acetone was detected in the associated samples and since the compound response was increasing, no data have been qualified based on the %D.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every experimental run.

All internal standard areas and retention times were within established limits.

7. Compound Identification

Target compounds are identified on the GC/MS by using the analyte's relative retention time and ion spectra.

All identified compounds met the specified criteria.

8. Matrix Spike/Matrix Spike Duplicate/Matrix Spike Blank

Matrix and matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method relative to the sample matrix. Matrix spike blank (MSB) data is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

All matrix spike and matrix spike duplicate recoveries and relative percent differences between recoveries were within control limits. All matrix spike blank recoveries were also within control limits.

9. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
MW-28 / DUP-2	acetone	20J	22J	<CRDL
	benzene	4J	4J	<CRDL
	ethylbenzene	5J	4J	<CRDL
	toluene	2J	2J	<CRDL
	m,p-xylene	2J	ND	NA
	o-xylene	2J	2J	<CRDL

The duplicate results are acceptable.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

Volatile Organics Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?		X	
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are surrogate recovery forms present?	X		
Are all the samples listed on the appropriate surrogate recovery form?	X		
Was one or more surrogate recoveries outside of specified limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Matrix Spikes			
Is there a matrix spike recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		
How many spike recoveries were outside of QC limits? 0 out of 6			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits? 0 out of 3			
Blanks			
Is the method blank summary form present?	X		
Has a method blank been analyzed for each set of samples or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed at least once every twelve hours for each system used?	X		
Do any method/reagent/instrument blanks have positive results?	X		
Are there trip/field/rinse/equipment blanks associated with every sample?	X		
Do any trip/field/rinse blanks have positive results?	X		

Volatile Organics Data Validation Checklist - Page 2

	YES	NO	NA
Tuning and Mass Calibration			
Are the GC/MS tuning forms present for BFB?	X		
Are the bar graph spectrum and mass/charge listing provided for each BFB?	X		
Has a BFB been analyzed for each twelve hours of analysis per instrument?	X		
Have the ion abundance criteria been met for each instrument used?	X		
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Are the reconstructed ion chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Are the mass spectra of the identified compounds present?	X		
Is the RRT of each reported compound within 0.06 RRT units of the continuing calibration standard?	X		
Are all ions present in the standard mass spectrum at a relative intensity of 10% or greater also present in the sample spectrum?	X		
Do the samples and standard relative ion intensities agree within 20%?	X		
Tentatively Identified Compounds			
Are all the TIC summary forms present?		X	
Are the mass spectra for the tentatively identified compounds and there associated "best match" spectra present?			X
Are any target compounds listed as TICs?			X
Are all ion present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?			X

Volatile Organics Data Validation Checklist - Page 3

	YES	NO	NA
Do the TIC and "best match" spectrum agree within 20%?			X
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and reconstructed ion chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs within specified limits?	X		
Are the average RRF equal to or greater than minimum requirements?	X		
Are there any transcription/calculation errors in reporting the RRF or RSD?		X	
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each twelve hours of analysis per instrument?	X		
All %D within acceptable limits?		X	
Are all RF equal to or greater than minimum requirements?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Internal Standards			
Are internal standard areas of every sample and blank within the upper and lower limits for each continuing calibration?	X		
Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
Field Duplicates			
Were field duplicates submitted with the samples?	X		

Volatile Qualifier Summary
Holding Time, Surrogates, Internal Standards

Sample ID	Holding Time*	Surrogates*			Internal Standards*		
		TOL	BFB	DCE	DFB	DCB	CBZ
DUP-2							
MW-17R							
MW-18							
MW-19							
MW-23I							
MW-23S							
MW-24SR							
MW-25D							
MW-25S							
MW-28							
MW-28 MS							
MW-28 MSD							
MW-30							
PZ-4D							
PZ-5D							
PZ-4S							
VOC Trip Blank-1							
VOC Trip Blank-2							
VOC Trip Blank-3							

Surrogates:
TOL Toluene-d8
BFB Bromofluorobenzene
DCE 1,4-Dichloroethane-d4

Internal Standards:
DCB 1,4-Difluorobenzene
DFB 1,4-Dichlorobenzene-d4
CBZ Chlorobenzene-d5

Qualifiers:
↑ Recovery high
↓ Recovery low

* Unless otherwise specified, all parameters are within acceptable limits.

Volatile Calibration Outliers

Instrument: MSD4
Matrix: water
Level: low

Date/Time	6/22/04		6/22/04 1716		6/23/04 1457		6/24/04 1538		6/25/04 1032	
	Initial Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.	
	RF	%RSD	RF	%D	RF	%D	RF	%D	RF	%D
Methylene chloride										
Acetone										
Trichloroethene										
Benzene										
Toluene										
Ethylbenzene										
m,p-xylene										
o-xylene										

Affected Samples:				

Corrected Sample Analysis Data Sheets

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-2

Lab Name: Buck Environmental Labs, Inc. Contract: Blasland

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406228-04A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 1201012.D

Level: (low/med) LOW Date Received: 06/17/04

% Moisture: not dec. Date Analyzed: 06/23/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	22	J
71-43-2	Benzene	4	J
100-41-4	Ethylbenzene	4	J
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	2	J
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	2	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-17R

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-02A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0901009.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	5	J
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-18

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-07A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 1401014.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-19

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-02A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0901009.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/25/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-23I

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-06A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 1301013.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-23S

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-05A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 1201012.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-24SR

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-08A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 1501015.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-25D

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-04A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 1101011.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-25S

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-03A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 1001010.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	UG/L	Q
67-64-1	Acetone		25	U
71-43-2	Benzene		10	U
100-41-4	Ethylbenzene		10	U
75-09-2	Methylene chloride		10	U
108-88-3	Toluene		10	U
79-01-6	Trichloroethene		10	U
1330-20-7	m,p-Xylene		20	U
95-47-6	o-Xylene		10	U

EPA SAMPLE NO.

MW-28

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Buck Environmental Labs, Inc. Contract: Blasland

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406228-01A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 1701017.D

Level: (low/med) LOW Date Received: 06/17/04

% Moisture: not dec. Date Analyzed: 06/25/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	20	J
71-43-2	Benzene	4	J
100-41-4	Ethylbenzene	5	J
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	2	J
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	2	J
95-47-6	o-Xylene	2	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-30

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-01A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0801008.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 10.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	250	U
71-43-2	Benzene	100	U
100-41-4	Ethylbenzene	100	U
75-09-2	Methylene chloride	100	U
108-88-3	Toluene	100	U
79-01-6	Trichloroethene	100	U
1330-20-7	m,p-Xylene	200	U
95-47-6	o-Xylene	100	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PZ-4D

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-03A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0801008.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/25/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PZ-5D

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-01A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 1001010.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/25/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PZ-4S

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-04A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0701007.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/25/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VOC TRIP BLANK -1

Lab Name: Buck Environmental Labs, Inc. Contract: Blasland

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406228-05A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 1301013.D

Level: (low/med) LOW Date Received: 06/17/04

% Moisture: not dec. Date Analyzed: 06/23/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VOC TRIP BLANK -2

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-09A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 1401014.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/23/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VOC TRIP BLANK -3

Lab Name: Buck Environmental Labs, Inc. Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-05A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0601006.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/25/04

GC Column: ZB624, 30m, 1. ID: .25 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

VOLATILE ANALYSES

METHOD 8015

Introduction

Analyses were performed according to USEPA method 8015 as referenced in the NYSDEC ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC test, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding time for volatile analyses under the Quality Assurance Project Plan (QAPP) is 7 days from sample receipt. The technical holding time is 14 days from sample collection to analysis.

All samples were analyzed within the specified holding time.

2. Blank Contamination

Quality assurance blanks (i.e., method, trip, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment.

No target compounds were detected in the method or trip blanks.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

3.1 Initial Calibration

The method specifies a percent relative standard deviation (%RSD) limit of 20% or, alternately, a correlation coefficient of 0.99 or greater.

The initial calibration was acceptable.

3.2 Continuing Calibration

All continuing calibration standards were within 15%D of the initial calibration.

4. Compound Identification

Target compounds are identified by using the analyte's retention time.

No target compounds were identified in the samples.

5. Matrix Spike/Matrix Spike Duplicate/Matrix Spike Blank

Matrix and matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method relative to the sample matrix.

Matrix spike blank (MSB) data is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

All matrix spike and matrix spike duplicate recoveries and the relative percent difference between recoveries were within control limits. All matrix spike blank recoveries were within control limits.

6. Field Duplicates

Results for duplicate samples are summarized below:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
MW-28 / DUP-2	methanol	ND	ND	NA

ND Not detected.
NA Analyte not detected in sample and/or duplicate. RPD not applicable.

The duplicate results are acceptable.

7. System Performance and Overall Assessment

Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

Organic Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Matrix Spikes			
Is there a matrix spike recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		
How many spike recoveries were outside of QC limits?			
0 out of 2			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits?			
0 out of 1			
Blanks			
Is the method blank summary form present?	X		
Has a method blank been analyzed for each set of samples or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed at least once every twelve hours for each system used?	X		
Do any method/reagent/instrument blanks have positive results?		X	
Are there trip/field/rinse/equipment blanks associated with every sample?	X		
Do any trip/field/rinse blanks have positive results?		X	
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		

Organic Data Validation Checklist - Page 2

	YES	NO	NA
Are the chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs or correlation coefficients within acceptable limits?	X		
Are there any transcription/calculation errors in reporting the RRF or RSD?		X	
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each twelve hours of analysis per instrument?	X		
All %D within acceptable limits?		X	
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Field Duplicates			
Were field duplicates submitted with the samples?	X		

Calibration Outliers

Instrument: V2-Varian 3300
Matrix: water

Date	6/23/04	6/23/04	6/23/04	6/24/04	6/24/04	
Time		1358	1444	0802	0844	
	Initial Cal.	Cont. Cal.	Cont. Cal.	Cont. Cal.	Cont. Cal.	Cont. Cal.
	RSD	%D	%D	%D	%D	%D
methanol	ok	ok	ok	ok	ok	ok
Affected Samples:						

vmc4036

Corrected Sample Analysis Data Sheets

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ALCOHOL TRIP BLANK

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: BLASLAND SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406228-06A

Sample wt/vol: 5 (g/mL) uL Lab File ID: 4301043.D

Level: (low/med) LOW Date Received: 06/17/04

% Moisture: not dec. Date Analyzed: 06/23/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ALCOHOL TRIP BLANK-2

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-10A

Sample wt/vol: 5 (g/mL) uL Lab File ID: 0601006.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ALCOHOL TRIP BLANK-3

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-06A

Sample wt/vol: 5 (g/mL) uL Lab File ID: 1301013.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-2

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: BLASLAND SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406228-04C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 4101041.D

Level: (low/med) LOW Date Received: 06/17/04

% Moisture: not dec. Date Analyzed: 06/23/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-17R

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-02C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 4501045.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/23/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-18

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-07C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 0401004.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-19

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-02C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 1001010.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-23S

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-05C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 4801048.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/23/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-23I

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-06C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 0301003.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-24SR

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-08C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 0501005.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-25D

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-04C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 4701047.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/23/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-25S

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-03C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 4601046.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/23/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-28

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: BLASLAND SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406228-01C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 3701037.D

Level: (low/med) LOW Date Received: 06/17/04

% Moisture: not dec. Date Analyzed: 06/23/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-30

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-01C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 4401044.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/23/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PZ-4D

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-03C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 1101011.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PZ-4S

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-04C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 1201012.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PZ-5D

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-01C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 0901009.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: not dec. Date Analyzed: 06/24/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

SEMIVOLATILE ANALYSES

METHOD 8270

Introduction

Analyses were performed according to USEPA SW-846 Method 8270 as referenced in NYSDEC ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC test, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for semi-volatile analyses under the Quality Assurance Project Plan (QAPP) are 5 days from sample receipt to extraction and 40 days to analysis. The technical holding times are 7 days from sample collection to extraction and 40 days to analysis.

All samples were extracted and analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No target compounds were detected in the method blanks.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies various percent relative standard deviation (%RSD) limits for select compounds and allows two outliers. A technical review of the data applies a RSD limit of 30% to all compounds with no exceptions.

The %RSD was less than 30% for all compounds.

4.2 Continuing Calibration

All continuing calibration standards were within 25% difference (%D) of the initial calibration.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

Surrogate recoveries were below control limits for one compound in samples MW-28, MW-30, MW-17R, MW-25S, MW-25D, MW-23S, MW-23I, MW-19, PZ-5D, PZ-4D and below 10% for one compound in sample MW-18. Non-detect data for sample MW-18 have been rejected based on the deviation. Since all other surrogate recoveries were within control limits for the other listed samples, no data have been qualified based on the deviations. One surrogate was diluted in samples DUP-2, MW-28 MS, MW-28MSD and MW-28DL. No data have been qualified based on the diluted surrogates.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every experimental run.

All internal standard areas and retention times were within established limits.

7. Compound Identification

Target compounds are identified on the GC/MS by using the analyte's relative retention time and ion spectra.

Aniline was detected above the linear range in sample MW-28. Data for aniline have been replaced with data from the dilution analyses in sample MW-28. All other identified compounds met the specified criteria.

8. Matrix Spike/Matrix Spike Duplicate/Matrix Spike Blank

Matrix and matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method relative to the sample matrix. Matrix spike blank (MSB) data is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

The MS/MSD recoveries and the MSB were within control limits.

9. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
MW-28 / DUP-2	aniline	910	680	28.9%

ND Not detected.
NA Analyte not detected in sample and/or duplicate. RPD not applicable.

The duplicate results are acceptable.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

Semivolatile Organics Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are the surrogate recovery forms present?	X		
Are all the samples listed on the appropriate surrogate recovery form?	X		
Were two or more surrogate recoveries outside of specified limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Matrix Spikes			
Is there a matrix spike recovery form present?	X		
Were matrix spikes analyzed at the required frequency	X		
How many spike recoveries were outside of QC limits? 0 out of 4			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits? 0 out of 2			
Blanks			
Is the method blank summary form present?	X		
Has a method blank been analyzed for each set of samples or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed for each GC/MS system used?	X		
Do any method/reagent/instrument blanks have positive results?		X	
Are there field/rinse/equipment blanks associated with every sample?		X	

Semivolatile Organics Data Validation Checklist - Page 2

	YES	NO	NA
Do any field/rinse blanks have positive results?			X
Tuning and Mass Calibration			
Are the GC/MS tuning forms present for DFTPP?	X		
Are the bar graph spectrum and mass/charge listing provided for each DFTPP?	X		
Has a DFTPP been analyzed for each twelve hours of analysis per instrument?	X		
Have the ion abundance criteria been met for each instrument used?	X		
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Has GPC cleanup been performed on all soil/sediment sample extracts?			X
Are the reconstructed ion chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Are the mass spectra of the identified compounds present?	X		
Are all ions present in the standard mass spectrum at a relative intensity of 10% or greater also present in the sample spectrum?	X		
Do the samples and standard relative ion intensities agree within 20%?	X		
Tentatively Identified Compounds			
Are all the TIC summary forms present?		X	
Are the mass spectra for the tentatively identified compounds and their associated "best match" spectra present?			X
Are any target compounds listed as TICs?			X

Semivolatile Organics Data Validation Checklist - Page 3

	YES	NO	NA
Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?			X
Do the TIC and "best match" spectrum agree within 20%?			X
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and reconstructed ion chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs within acceptable limits?	X		
Are the average RRF equal to or greater than minimum requirements?	X		
Are there any transcription/calculation errors in reporting the RRF or RSD?		X	
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each twelve hours of analysis per instrument?	X		
All %D within acceptable limits?	X		
Are all RF equal to or greater than minimum requirements?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Internal Standards			
Are internal standard areas of the samples and blanks within the upper and lower limits for each continuing calibration?	X		
Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		

	YES	NO	NA
Field Duplicates			
Were field duplicates submitted with the samples?	X		

Semi-Volatile Qualifier Summary
Holding Time, Surrogates, Internal Standards

Sample ID	Holding Time*	Surrogates*				Internal Standards*					
		NBZ	FBP	TPH	DCB	DCB	NPT	ANT	PHN	CRY	PRY
DUP-2				D							
MW-17R				↓							
MW-18				↓↓							
MW-19				↓							
MW-23I				↓							
MW-23S				↓							
MW-24SR											
MW-25D				↓							
MW-25S				↓							
MW-28				↓							
MW-28 MS				D							
MW-28 MSD				D							
MW-28DL				D							
MW-30				↓							
PZ-4D				↓							
PZ-5D				↓							
PZ-4S											

Surrogates:
NBZ Nitrobenzene-d5
FBP 2-Fluorobiphenyl
TPH Terphenyl-d14
DCB 1,2-Dichlorobenzene-d4

Internal Standards:
DCB 1,4-Dichlorobenzene-d4
NPT Naphthalene-d8
ANT Acenaphthene-d10
PHN Phenanthrene-d10
CRY Chrysene-d12
PRY Perylene-d12

Qualifiers:
D Diluted
↓ Recovery low
↑ Recovery high
↓↓ Recovery below 10%

* Unless otherwise specified, all parameters are within acceptable limits.

vmc4036

Semivolatile Calibration Outliers

Instrument: MSD2
Level: low

Date/Time	7/08/04		7/12/04 1011		7/14/04 0935		7/15/04 0826		7/15/04 1657	
	Initial Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.	
	RF	%RSD	RF	%D	RF	%D	RF	%D	RF	%D
aniline										
n,n'-dimethylaniline										

Affected Samples:					

Corrected Sample Analysis Data Sheets

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DUP-2

Lab Name: Buck Environmental Labs, In Contract: BB&L

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406228-04B

Sample wt/vol: 925 (g/mL) ML Lab File ID: 006.D

Level: (low/med) LOW Date Received: 06/17/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/15/04

Injection Volume: 1 (µL) Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	680	
121-69-7	N,N-Dimethylaniline	110	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-17R

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-02B

Sample wt/vol: 950 (g/mL) ML Lab File ID: 4.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/14/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-17R

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-02B

Sample wt/vol: 950 (g/mL) ML Lab File ID: 4.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/15/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 2 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-18

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-07B

Sample wt/vol: 960 (g/mL) ML Lab File ID: 10.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/14/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-18

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-07B

Sample wt/vol: 960 (g/mL) ML Lab File ID: 9.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/15/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-19

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-02B

Sample wt/vol: 985 (g/mL) ML Lab File ID: 13.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/14/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-19

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-02B

Sample wt/vol: 985 (g/mL) ML Lab File ID: 11.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/15/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-23I

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-06B

Sample wt/vol: 970 (g/mL) ML Lab File ID: 9.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/14/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	1	J
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

MW-23I

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-06B

Sample wt/vol: 970 (g/mL) ML Lab File ID: 8.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/15/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	1	J
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-23S

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-05B

Sample wt/vol: 970 (g/mL) ML Lab File ID: 8.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/14/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-23S

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-05B

Sample wt/vol: 970 (g/mL) ML Lab File ID: 7.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/15/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-24SR

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-08B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/14/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-25D

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-04B

Sample wt/vol: 995 (g/mL) ML Lab File ID: 6.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/15/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

MW-25D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-04B

Sample wt/vol: 995 (g/mL) ML Lab File ID: 7.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/14/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-25S

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-03B

Sample wt/vol: 950 (g/mL) ML Lab File ID: 6.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/14/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-25S

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-03B

Sample wt/vol: 950 (g/mL) ML Lab File ID: 5.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/15/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1D

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-28

Lab Name: Buck Environmental Labs, In Contract: BB&L

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406228-01B

Sample wt/vol: 935 (g/mL) ML Lab File ID: 11.D

Level: (low/med) LOW Date Received: 06/17/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/12/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	910 ~~510~~	ED
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-28DL

Lab Name: Buck Environmental Labs, In Contract: BB&L

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406228-01B

Sample wt/vol: 935 (g/mL) ML Lab File ID: 003.D

Level: (low/med) LOW Date Received: 06/17/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/15/04

Injection Volume: 1 (µL) Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	910	
121-69-7	N,N-Dimethylaniline	110	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-30

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-01B

Sample wt/vol: 990 (g/mL) ML Lab File ID: 3.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/14/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

MW-30

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406231-01B

Sample wt/vol: 990 (g/mL) ML Lab File ID: 3.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/15/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

PZ-4D

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-03B

Sample wt/vol: 990 (g/mL) ML Lab File ID: 14.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/14/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

PZ-4D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-03B

Sample wt/vol: 990 (g/mL) ML Lab File ID: 12.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/15/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

PZ-4S

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-04B

Sample wt/vol: 975 (g/mL) ML Lab File ID: 15.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/14/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

PZ-5D

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-01B

Sample wt/vol: 990 (g/mL) ML Lab File ID: 12.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/14/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

PZ-5D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0415

Matrix: (soil/water) WATER Lab Sample ID: 0406244-01B

Sample wt/vol: 990 (g/mL) ML Lab File ID: 10.D

Level: (low/med) LOW Date Received: 06/18/04

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/15/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6 Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	5	U
121-69-7	N,N-Dimethylaniline	5	U

Chain of Custody

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists
6723 Towpath Road, P.O. Box 66
Syracuse, New York 13214-0066
TEL: (315) 446-9120

CHAIN OF CUSTODY RECORD

BBL 6/17/04

BEL0414 0406218

0406218

PROJ. NO. 26003 | PROJECT NAME: McKesson Bear Street

SAMPLERS: (Signature)

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	Number of Containers	VOCs	SVOC	Alcohols	SO4/NO3 - (PO4 S2-	Total metals (Fe, Mn)	Diss. metals (Fe, Mn)	NH3	REMARKS
1	6/16/04	0810		V	MW-36	13	3	2	3	1	1	1	1	1 ① include K for total metals
2		1045		V	MW-8S	13	3	2	3	1	1	1	1	1
3		1050		V	MW-27	13	3	2	3	1	1	1	1	1 ② include NH3
3		1050		V	MW-27 MS	8	3	2	3	0	0	0	0	0 ③ 4 coolers
3		1050		V	MW-27 MSD	8	3	2	3	0	0	0	0	0 Please contact
4		1300		V	MW-28	13	3	2	3	1	1	1	1	1
4		1300		V	MW-28 MS	8	3	2	3	0	0	0	0	0 BEL 0415 Christie Sobol
4		1300		V	MW-28 MSD	8	3	2	3	0	0	0	0	0 0228
					Dup-1	8	3	2	3	0	0	0	0	0 (315) 446-2570
					Dup-2	8	3	2	3	0	0	0	0	0 BEL0415 X 325
					Trip Blank VOCs	3	3							0228
					Trip Blank Alcohols	3			3					
					Temp Blank	2								
5		1445		V	MW-29	13	3	2	3	1	1	1	1	1

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
2	6/16/04						
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received for Laboratory by: (Signature) Sally Deere	DATE 6/17/04	TIME 10:00am	Remarks: ① Temp 4.1.6 ③ 4.10 ② Temp 4.2 ④ 4.3	

10/23/95
5951188L.CDR

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

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6723 Towpath Road, P.O. Box 66
Syracuse, New York 13214-0066
TEL: (315) 446-9120

Cooler 1 = 6.9°C
Cooler 2 = 2.7°C
pH = all OK

0406231
0406232
1 of 1
(Buck)

0406231 BEL0415 0406232

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
26003	McKesson Bear Street

SAMPLERS: (Signature)

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	Number of Containers	VOCs	SVOC	Alcohols	SO_4^{2-}/NO_3/PO_4	S^{2-}	Total metals (Fe,Mn,K)	Diss. metals (Fe,Mn)	NH_3	REMARKS
1	6/17/04	0800		✓	MW-30	13	3	2	3	1	1	1	1	1	① Total metals include K
2		0815		✓	MW-17R	8	3	2	3						② Include NH_3
3		1015		✓	MW-25S	8	3	2	3						③ Total orthophosphate
4		1010		✓	MW-25D	8	3	2	3						
5		1145		✓	MW-23S	8	3	2	3						Please contact
6		1205		✓	MW-23I	8	3	2	3						Christie Sabol
7		1330		✓	MW-18	8	3	2	3						(315) 446-2570
8		1440		✓	MW-24SR	8	3	2	3						ext. 325
					Trip Blanks	6	3		3						
					Temp Blanks	2									④ Samples are in 2 Coolers

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
	6/17/04	1700					
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received for Laboratory by: (Signature)	DATE	TIME	Remarks:	
			Pamela Davis	6/18/04	10:30		

10/23/95
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SDG - BEL0415

040624

1 of 1

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Syracuse, New York 13214-0066
TEL: (315) 446-9120

CHAIN OF CUSTODY RECORD

PROJ. NO. 26003 | PROJECT NAME: Mckesson Bear Street

SAMPLERS: (Signature)

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	Number of Containers	VOCs	SVOC	Alcohols				REMARKS
1	6/18/04	0815		V	PZ-5D	8	3	2	3				
2		0850		V	MW-19	8	3	2	3				Please contact
3		1010		V	PZ-4D	8	3	2	3				Christie Sabol
4		1035		V	PZ-4S	8	3	2	3				
					Trip Blanks	6	3		3				(315) 446-2570
					Temp Blank	1							ext. 325
													* Samples delivered to Buck by Christie Sabol
					Total	39							

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
	6/18/04	1350					
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received for Laboratory by: (Signature)	DATE	TIME	Remarks:	
Christie M Sabol	6/18/04	4:45pm	Barbara Hauskamp	6/18/04	4:45 PM		

10/23/95
5951188L.CDR

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