

**BLAGG ENGINEERING, INC.**

P.O. Box 87, Bloomfield, New Mexico 87413  
Phone: (505)632-1199 Fax: (505)632-3903

30-045-32453

August 11, 2004

Mr. Denny Foust  
New Mexico Oil Conservation Division  
1000 Rio Brazos Rd.  
Aztec, New Mexico 87410



Re: Soil Sampling Test Results  
J.W. Garrison No. 7  
(G) Sec. 22 - T29N - R11W  
San Juan County, New Mexico

Dear Mr. Foust:

At your request Blagg Engineering, Inc. (BEI) conducted soil sampling on and around the J.W. Garrison No. 7 well site. The purpose of the sampling and testing was to identify potential surface impacts from recent plugging and abandoning operations conducted on the well. The site inspection and soil collection was performed on July 29, 2004. Samples were submitted to Envirotech, Inc. laboratories in Farmington, New Mexico and test results were available on August 3, 2004.

Three areas at the site were included in the test program (Figure 1). Immediately adjacent to the PxA marker a four point composite was collected at a distance about 4 feet from the marker. This sample included soils that had obvious staining from the well work operations. A second four point composite sample was collected at a distance about 15 feet from the PxA marker. This sample did not contain any obvious staining. A third composite sample was collected from four low point areas south of the PxA marker near U.S. Highway 64. This sample was of soils that may have been impacted from well water flow that occurred during the plugging operations.

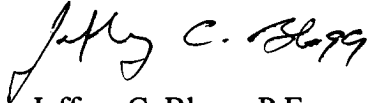
All of the samples were collected from the ground surface to a maximum depth of 6-inches using a sample spade. Each composite sample was placed into a 1 gallon plastic baggie and thoroughly mixed. A portion of the baggie sample was placed into a 4-ounce jar with teflon™ lined lid and stored in an ice chest with ice packs. The samples were hand delivered to Envirotech's laboratory for testing.

Laboratory testing included U.S. EPA Method 8015 for total petroleum hydrocarbons (TPH), U.S. EPA Method 8021 for volatile organics of benzene, toluene, ethyl-benzene and xylenes (BTEX), RCRA metals and general chemistry. Based on the test results (see attached laboratory reports), all three composite samples appear to be non-hazardous and inert. There were no metals, volatile organics or reactive properties that would identify any sample as a toxic material. The sample collected from immediately adjacent to the well head marker tested 3.3 parts per million of TPH, but this is well below the normal closure standard of 100 parts per million. There were also trace

amounts of several heavy metals in all samples, but this is likely naturally occurring and not a result of the plugging operation. These test results do not indicate the presence of any surface contamination and BEI does not recommend further testing of the site.

Questions or comments concerning this transmittal may be directed to myself at (505)632-1199 (office) or (505)320-1183 (cell). We appreciate the opportunity to be of service to the NMOCD.

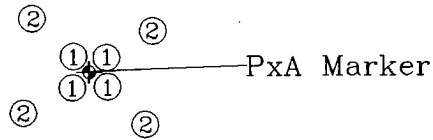
Respectfully submitted:  
***Blagg Engineering, Inc.***



Jeffrey C. Blagg, P.E.  
President

Attachment: Lab Reports  
Site Diagram

cc: Bill Clark - A Plus Well Service



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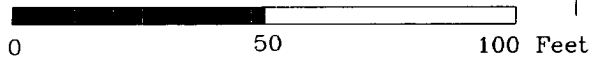
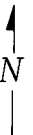
Concrete Sidewalk

U.S. Highway 64

Note: Plotted are the approximate test points for composite samples collected for the onsite investigation.

LEGEND

③ Composite Sample Locations



J.W. GARRISON NO. 7 - Soil Sample Locations  
(G) Sec. 22 - T29N - R11W, San Juan Co., NM

*BLAGG ENGINEERING, INC.*

DATE: 8/2004

FIGURE 1

BY: JCB

*P.O. BOX 87, BLOOMFIELD, NM  
PHONE: (505)632-1199*

# CHAIN OF CUSTODY RECORD

12640

Client / Project Name		Project Location		ANALYSIS / PARAMETERS										Remarks				
BLAKE/APLUS		J.W. GARRISON #7		Client No. 94034-010		Sample Matrix		No. of Containers		TPH	8015	BTX	8021	B-PCEA	METALS	CATION AMON		
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH	8015	BTX	8021	B-PCEA	METALS	CATION AMON	Remarks					
SAMPLE #1	7/29/04	0735	29750	SOIL	2	X	X	X	X	X	X	X	4-POINT COMPOSITE					
SAMPLE #2	"	0745	29751	"	2	X	X	X	X	X	X	X	"					
SAMPLE #3	"	0759	29752	"	2	X	X	X	X	X	X	X	"					
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Remarks						
J.C. Slag		7/29/04		1456		[Signature]		7/29/04		1456		[Signature]						
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Remarks						
[Signature]		[Date]		[Time]		[Signature]		[Date]		[Time]		[Signature]						
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Remarks						
[Signature]		[Date]		[Time]		[Signature]		[Date]		[Time]		[Signature]						

## ENVIROTECH INC.

5796 U.S. Highway 64  
Farmington, New Mexico 87401  
(505) 632-0615

Sample Receipt		
Received Intact	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Cool - Ice/Blue Ice	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #1	Date Reported:	08-02-04
Laboratory Number:	29750	Date Sampled:	07-29-04
Chain of Custody No:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Extracted:	07-30-04
Preservative:	Cool	Date Analyzed:	08-02-04
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

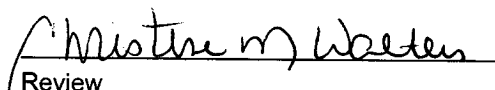
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	3.3	0.1
Total Petroleum Hydrocarbons	3.3	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **J. W. Garrison #7 4-Point Composite.**

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

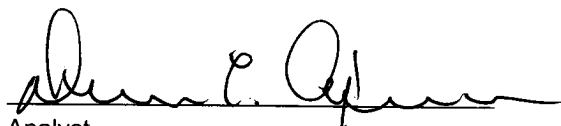
Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #2	Date Reported:	08-02-04
Laboratory Number:	29751	Date Sampled:	07-29-04
Chain of Custody No:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Extracted:	07-30-04
Preservative:	Cool	Date Analyzed:	08-02-04
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

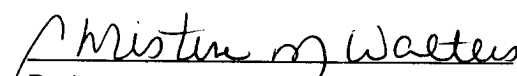
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **J. W. Garrison #7 4-Point Composite.**

  
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Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #3	Date Reported:	08-02-04
Laboratory Number:	29752	Date Sampled:	07-29-04
Chain of Custody No:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Extracted:	07-30-04
Preservative:	Cool	Date Analyzed:	08-02-04
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

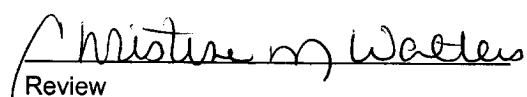
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **J. W. Garrison #7 4-Point Composite.**

  
Analyst

  
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# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

### Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	08-02-TPH QA/QC	Date Reported:	08-02-04
Laboratory Number:	29747	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-02-04
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	02-19-04	1.8591E-002	1.8572E-002	0.10%	0 - 15%
Diesel Range C10 - C28	02-19-04	1.5507E-002	1.5492E-002	0.10%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

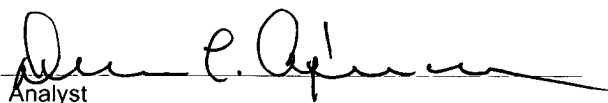
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	0.5	0.5	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

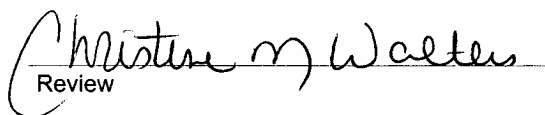
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	0.5	250	250	99.8%	75 - 125%
Diesel Range C10 - C28	ND	250	250	100.0%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for samples 29747 - 29752.

  
Analyst

  
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# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #1	Date Reported:	08-02-04
Laboratory Number:	29750	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Analyzed:	08-02-04
Preservative:	Cool	Date Extracted:	07-30-04
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	7.3	1.7
Ethylbenzene	ND	1.5
p,m-Xylene	11.4	2.2
o-Xylene	13.3	1.0
<b>Total BTEX</b>	<b>32.0</b>	

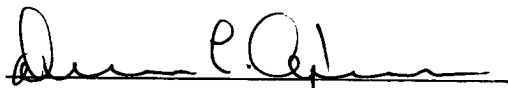
ND - Parameter not detected at the stated detection limit.

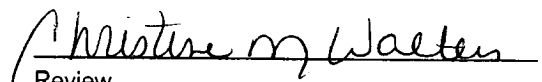
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99 %
	1,4-difluorobenzene	99 %
	Bromochlorobenzene	99 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **J. W. Garrison #7 4-Point Composite.**

  
Analyst

  
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# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #2	Date Reported:	08-02-04
Laboratory Number:	29751	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Analyzed:	08-02-04
Preservative:	Cool	Date Extracted:	07-30-04
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	4.1	1.7
Ethylbenzene	4.2	1.5
p,m-Xylene	ND	2.2
o-Xylene	1.8	1.0
<b>Total BTEX</b>	<b>10.1</b>	

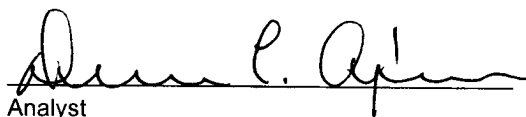
ND - Parameter not detected at the stated detection limit.

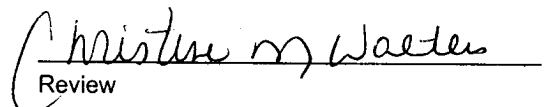
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99 %
	1,4-difluorobenzene	99 %
	Bromochlorobenzene	99 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **J. W. Garrison #7 4-Point Composite.**

  
Analyst

  
Review

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #3	Date Reported:	08-02-04
Laboratory Number:	29752	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Analyzed:	08-02-04
Preservative:	Cool	Date Extracted:	07-30-04
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	6.1	1.8
Toluene	13.3	1.7
Ethylbenzene	8.3	1.5
p,m-Xylene	ND	2.2
o-Xylene	ND	1.0
<b>Total BTEX</b>	<b>27.7</b>	

ND - Parameter not detected at the stated detection limit.

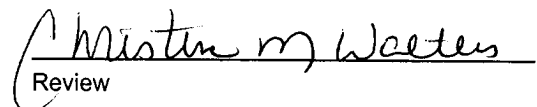
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99 %
	1,4-difluorobenzene	99 %
	Bromochlorobenzene	99 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **J. W. Garrison #7 4-Point Composite.**

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

### Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	08-02-TPH QA/QC	Date Reported:	08-02-04
Laboratory Number:	29747	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-02-04
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept. Range
Gasoline Range C5 - C10	02-19-04	1.8591E-002	1.8572E-002	0.10%	0 - 15%
Diesel Range C10 - C28	02-19-04	1.5507E-002	1.5492E-002	0.10%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

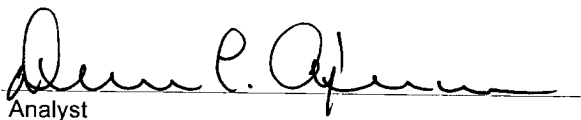
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	0.5	0.5	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

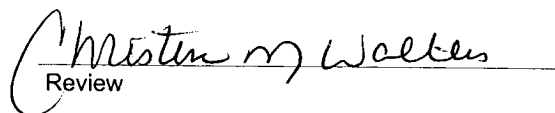
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	0.5	250	250	99.8%	75 - 125%
Diesel Range C10 - C28	ND	250	250	99.8%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for samples 29747 - 29752.

  
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# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

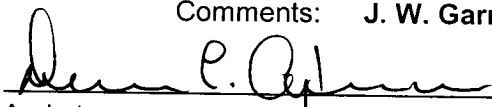
## CATION / ANION ANALYSIS

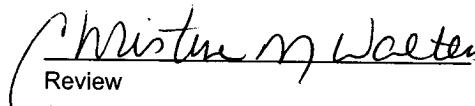
Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #1	Date Reported:	08-02-04
Laboratory Number:	29750	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Extracted:	07-31-04
Preservative:	Cool	Date Analyzed:	08-02-04
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		Units
pH	11.16	s.u.		
Conductivity @ 25° C	913	umhos/cm		
Total Dissolved Solids @ 180C	568	mg/L		
Total Dissolved Solids (Calc)	575	mg/L		
SAR	5.5	ratio		
Total Alkalinity as CaCO3	89.6	mg/L		
Total Hardness as CaCO3	132	mg/L		
Bicarbonate as HCO3	89.6	mg/L	1.47	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	0.2	mg/L	0.00	meq/L
Nitrite Nitrogen	0.026	mg/L	0.00	meq/L
Chloride	260	mg/L	7.33	meq/L
Fluoride	0.81	mg/L	0.04	meq/L
Phosphate	0.5	mg/L	0.02	meq/L
Sulfate	35.0	mg/L	0.73	meq/L
Iron	0.004	mg/L	0.00	meq/L
Calcium	52.8	mg/L	2.63	meq/L
Magnesium	<0.01	mg/L	0.00	meq/L
Potassium	27.6	mg/L	0.71	meq/L
Sodium	144	mg/L	6.26	meq/L
Cations			9.60	meq/L
Anions			9.59	meq/L
Cation/Anion Difference			0.11%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Water And Waste Water", 18th ed., 1992.

Comments: J. W. Garrison 4-Point Composite.

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

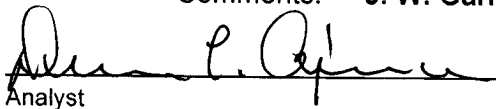
## CATION / ANION ANALYSIS

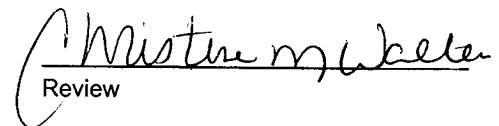
Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #2	Date Reported:	08-02-04
Laboratory Number:	29751	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Extracted:	07-31-04
Preservative:	Cool	Date Analyzed:	08-02-04
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		Units
pH	6.24	s.u.		
Conductivity @ 25° C	1,040	umhos/cm		
Total Dissolved Solids @ 180C	540	mg/L		
Total Dissolved Solids (Calc)	455	mg/L		
SAR	1.9	ratio		
Total Alkalinity as CaCO3	45.3	mg/L		
Total Hardness as CaCO3	232	mg/L		
Bicarbonate as HCO3	45.3	mg/L	0.74	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	1.8	mg/L	0.03	meq/L
Nitrite Nitrogen	0.082	mg/L	0.00	meq/L
Chloride	216	mg/L	6.09	meq/L
Fluoride	0.81	mg/L	0.04	meq/L
Phosphate	3.3	mg/L	0.10	meq/L
Sulfate	39.2	mg/L	0.82	meq/L
Iron	0.027	mg/L	0.00	meq/L
Calcium	80.0	mg/L	3.99	meq/L
Magnesium	7.81	mg/L	0.64	meq/L
Potassium	12.2	mg/L	0.31	meq/L
Sodium	66.3	mg/L	2.88	meq/L
Cations			7.83	meq/L
Anions			7.83	meq/L
Cation/Anion Difference			0.01%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Water And Waste Water", 18th ed., 1992.

Comments: J. W. Garrison 4-Point Composite.

  
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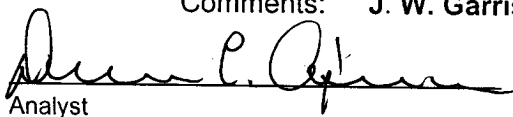
## CATION / ANION ANALYSIS

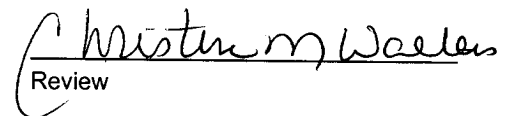
Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #3	Date Reported:	08-02-04
Laboratory Number:	29752	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Extracted:	07-31-04
Preservative:	Cool	Date Analyzed:	08-02-04
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		Units
pH	6.37	s.u.		
Conductivity @ 25° C	650	umhos/cm		
Total Dissolved Solids @ 180C	492	mg/L		
Total Dissolved Solids (Calc)	457	mg/L		
SAR	2.2	ratio		
Total Alkalinity as CaCO3	82.9	mg/L		
Total Hardness as CaCO3	192	mg/L		
Bicarbonate as HCO3	82.9	mg/L	1.36	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	0.3	mg/L	0.00	meq/L
Nitrite Nitrogen	0.017	mg/L	0.00	meq/L
Chloride	180	mg/L	5.08	meq/L
Fluoride	1.09	mg/L	0.06	meq/L
Phosphate	4.6	mg/L	0.15	meq/L
Sulfate	48.7	mg/L	1.01	meq/L
Iron	0.125	mg/L	0.00	meq/L
Calcium	65.6	mg/L	3.27	meq/L
Magnesium	6.84	mg/L	0.56	meq/L
Potassium	29.2	mg/L	0.75	meq/L
Sodium	70.6	mg/L	3.07	meq/L
Cations			7.66	meq/L
Anions			7.66	meq/L
Cation/Anion Difference			0.01%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Water And Waste Water", 18th ed., 1992.

Comments: J. W. Garrison 4-Point Composite.

  
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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## TRACE METAL ANALYSIS

Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #1	Date Reported:	08-02-04
Laboratory Number:	29750	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Analyzed:	08-02-04
Preservative:	Cool	Date Digested:	07-31-04
Condition:	Cool & Intact	Analysis Needed:	RCRA Metals

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	TCLP Regulatory Level (mg/Kg)
Arsenic	0.003	0.001	5.0
Barium	0.164	0.001	100
Cadmium	ND	0.001	1.0
Chromium	ND	0.001	5.0
Lead	ND	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	0.001	0.001	1.0
Silver	ND	0.001	5.0

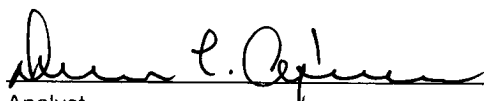
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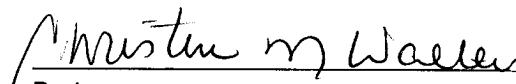
References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.  
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **J. W. Garrison #7 4 - Point Composite.**

  
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## TRACE METAL ANALYSIS

Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #2	Date Reported:	08-02-04
Laboratory Number:	29751	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Analyzed:	08-02-04
Preservative:	Cool	Date Digested:	07-31-04
Condition:	Cool & Intact	Analysis Needed:	RCRA Metals

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	TCLP Regulatory Level (mg/Kg)
Arsenic	0.002	0.001	5.0
Barium	0.122	0.001	100
Cadmium	ND	0.001	1.0
Chromium	ND	0.001	5.0
Lead	ND	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	ND	0.001	1.0
Silver	ND	0.001	5.0

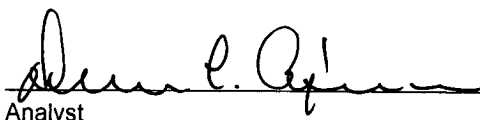
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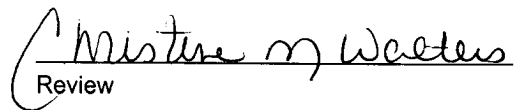
References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.  
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **J. W. Garrison #7 4 - Point Composite.**

  
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## TRACE METAL ANALYSIS

Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #3	Date Reported:	08-02-04
Laboratory Number:	29752	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Analyzed:	08-02-04
Preservative:	Cool	Date Digested:	07-31-04
Condition:	Cool & Intact	Analysis Needed:	RCRA Metals

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	TCLP Regulatory Level (mg/Kg)
Arsenic	0.003	0.001	5.0
Barium	0.135	0.001	100
Cadmium	ND	0.001	1.0
Chromium	ND	0.001	5.0
Lead	ND	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	0.001	0.001	1.0
Silver	ND	0.001	5.0

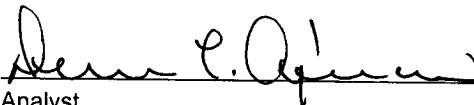
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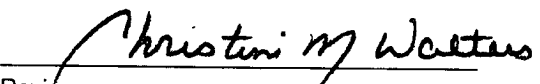
References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.  
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C  
section 261.24, August 24, 1998.

Comments: **J. W. Garrison #7 4 - Point Composite.**

  
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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## TRACE METAL ANALYSIS Quality Control / Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	08-02-04 QA/AC	Date Reported:	08-02-04
Laboratory Number:	29747	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	Total RCRA Metals	Date Analyzed:	08-02-04
Condition:	N/A	Date Digested:	07-31-04

Blank & Duplicate Conc. (mg/Kg)	Instrument Blank (mg/L)	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.006	0.006	0.0%	0% - 30%
Barium	ND	ND	0.001	0.246	0.248	0.8%	0% - 30%
Cadmium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.001	0.001	0.0%	0% - 30%
Lead	ND	ND	0.001	0.001	0.001	0.0%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	0.002	0.002	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%

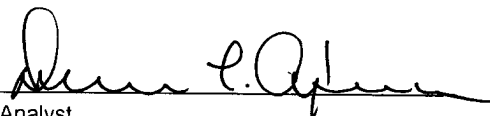
Spike Conc. (mg/Kg)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.006	0.505	99.8%	80% - 120%
Barium	0.500	0.246	0.745	99.9%	80% - 120%
Cadmium	0.500	ND	0.500	100.0%	80% - 120%
Chromium	0.500	0.001	0.501	100.0%	80% - 120%
Lead	0.500	0.001	0.500	99.8%	80% - 120%
Mercury	0.050	ND	0.050	100.0%	80% - 120%
Selenium	0.500	0.002	0.501	99.8%	80% - 120%
Silver	0.500	ND	0.500	100.0%	80% - 120%

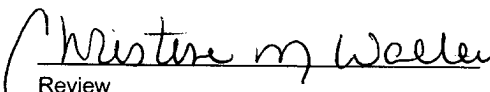
ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.  
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Comments: QA/QC for samples 29747 - 29752.

  
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