L E G E N D
Technical Services of Arizona, Inc.

17631 North 25th Avenue
Phoenix, Arizona 85023
P (602)324-6100
F (602)324-6101
ADHS# AZ0004

February 13, 2003

Mr. Buck Schmidt
Brown & Caldwell
110 S. Church Avenue
Suite 2300
Tucson, AZ 85701

RE: Bisbee Project
Legend ID: 0301-00734

Dear Mr. Schmidt:

I. Introduction:

Legend Technical Services of Arizona, Inc., (Legend) received one water sample from a representative of Brown & Caldwell on January 23, 2003. The sample was processed for analysis in accordance with the Chain of Custody.

II. Subcontractors Utilized:

pH and Colilert were analyzed by Legend Technical Services, Tucson, AZ; #AZ0004.

III. Case Narrative:

The sample was collected on January 22, 2003 and was received intact.

There were no problems encountered during sample processing by Legend. Analytical data and the accompanying Chain of Custody are attached. Quality control reports have been included for all analyses.

IV. Remarks:

Thank you for selecting Legend for your analytical work. Please contact me if you have any questions or concerns at 602-324-6106.

Prepared by:
LEGEND TECHNICAL SERVICES OF ARIZONA, INC.

Susan M Butler

Susan Butler
Project Manager

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Brown & Caldwell
110 S. Church Ave.
Suite 2300
Tucson, AZ 85701
Attn: Buck Schmidt

Received: 1/23/03
Reported: 2/06/03
Invoice No: 093415

Project Name: Bisbee Project

Matrix: Groundwater
Sample No: 0301-00734-001
Sample ID: TWGC 1-22-03

Time Sampled: 15:00
Date Sampled: 1/22/2003

PARAMETER	METHOD	RESULTS	UNITS	PQL	DATE ANALYZED
pH	EPA 150.1	7.44	Std Unit		1/23/03
Fluoride	SM 4500-FC	0.2	mg/L	0.1	1/27/03
Total Kjeldahl Nitrogen	EPA 351.2	<1.0	mg/L	1.0	1/29/03
Nitrogen as Nitrite	SM4500NO2B	<0.1	mg/L	0.1	1/24/03
Nitrate plus Nitrite	SM 4500-NO3 F	3.9	mg/L	0.1	1/24/03
Nitrogen, Total	CALC.	3.9	mg/L		1/31/03
Nitrogen as Nitrate	CALC.	3.9	mg/L		1/24/03
Colilert	SM 9223B	0	P/A		1/23/03
Metals Digestion for ICP	EPA 200.7				1/24/03
Metals Digestion for GFAA	EPA 200.9				1/24/03
Antimony	EPA 200.9	<0.004	mg/L	0.004	1/31/03
Arsenic	EPA 200.9	<0.005	mg/L	0.005	2/04/03
Barium	EPA 200.7	0.38	mg/L	0.01	1/29/03
Beryllium	EPA 200.7	<0.002	mg/L	0.002	1/27/03
Cadmium	EPA 200.7	<0.004	mg/L	0.004	1/27/03
Chromium	EPA 200.7	<0.005	mg/L	0.005	1/27/03
Lead	EPA 200.9	<0.005	mg/L	0.005	1/30/03
Mercury	EPA 245.1	<0.0002	mg/L	0.0002	1/28/03
Nickel	EPA 200.7	<0.02	mg/L	0.02	1/27/03
Selenium	EPA 200.9	<0.005	mg/L	0.005	1/30/03
Thallium	EPA 200.9	<0.001	mg/L	0.001	1/31/03
Total Dissolved Solids	SM 2540C	300.	mg/L		1/29/03
Cyanide, Total	SM4500 CNE	<0.01	mg/L	0.01	1/29/03
Cyanide, Amenable/Free	CALCULATION	<0.01	mg/L		1/29/03
Sulfate	EPA 375.4	25.8	mg/L	5.0	2/03/03
Chloride	SM 4500-CL B	30.	mg/L	5.	1/30/03

pH and Colilert analyzed by Legend Technical Services of Arizona, Tucson AZ, #AZ0004.

NOTE:
Interpretation of Colilert Results:
0 = Negative for Coliform bacteria

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1 = Positive for Coliform bacteria and Negative for E.coli (fecal bacteria)
2 = Positive for Coliform bacteria and Positive for E.coli (fecal bacteria)

Authorized Signatory

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Quality Control Data Report

Client: Brown & Caldwell
Legend Sample ID: 0301-00734

Analyte	Method	Analysis Date	Spike Conc. (ppm)	MS %Rec	MSD %Rec	Acceptance Limits	MS RPD	Blank (ppb)	ICV %Rec	CCV %Rec	Acceptance Limits	LFB % Rec	LFBD %Rec
Chloride	SM 4500 Cl B	1/30/03	20	100	105	80-120	5	<PQL	108	108	90-110		
Sulfate	EPA 375.4	2/3/03	20	97	100	80-120	3	<PQL	104	105	90-110		
Fluoride	SM 4500 F C	1/27/03	3.0	83	83	80-120	0	<PQL	97	97	90-110		
Nitrate + Nitrite	SM 4500 NO3 F	1/24/03	10	85	83	80-120	2	<PQL	101	99	90-110		
Nitrite	SM 4500 NO2B	1/24/03	0.1	83	83	80-120	0	<PQL	90	95	90-110		
Total Kjeldahl Nitrogen	EPA 351.3	1/29/03	5	46	48	90-110	4	<PQL	102	98	90-110	100	100
Total Dissolved Solids	SM 2540 C	1/29/03	N/A	N/A	N/A	N/A	N/A	<PQL	92	98	90-110		
Total Cyanide	SM 4500 CN E	1/29/03	0.05	96	96	80-120	0	<PQL	99	98	90-110		
Amenable Cyanide	SM4500 CN G	1/29/03	0.05	96	96	80-120	0	<PQL	99	98	90-110		

MI is Matrix Interference
MS/MSD are Matrix Spike/Matrix Spike Duplicate
ICV is Initial Calibration Verification
CCV is Continuing Calibration Verification
RPD is Relative Percent Difference
BLK is a Blank
LFB/LFBD are Laboratory Fortified Blank/Laboratory Fortified Blank Duplicate

I:/Corp0/CONTROL/CLIENTQC/INORG/0301-00734

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Quality Control Data Report

Analysis Date: 2/4/03
Legend Sample ID's 0301-00719-001; 0301-00720-001; 0301-00725-001; 0301-00734-001; 0301-741-001; 0301-742-001; 0301-00787-001

Matrix Spike ID: 0301-00787-001

Analyte	Method	Spike Conc. (ppm)	MS % Rec	MSD % Rec	Method Blank (ppm)	ICV %Rec	CCV %Rec	LFB %Rec
Arsenic	EPA 200.9	0.010	125	132	<PQL	110	110	92

MI = Matrix Interference
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
PQL = Practical Quantitation Limit

MS = Matrix Spike
MSD = Matrix Spike Duplicate.
LFB = Laboratory Fortified Blank

200.9 020403aa

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Quality Control Data Report

Analysis Date: 1/31/03
Legend Sample ID's: 0301-00702-001, 002; 0301-00719-001; 0301-00720-001; 0301-00734-001

Matrix Spike ID: 0301-00711-002

Analyte	Method	Spike Conc. (ppm)	MS % Rec	MSD % Rec	Method Blank (ppm)	ICV %Rec	CCV %Rec	LFB %Rec
Antimony	EPA 200.9	0.010	113	110	<PQL	98	105	
Thallium	EPA 200.9	0.010	106	105	<PQL	100	100	

MI = Matrix Interference
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
PQL = Practical Quantitation Limit
MS = Matrix Spike
MSD = Matrix Spike Duplicate.
LFB = Laboratory Fortified Blank

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Quality Control Data Report

Analysis Date: 1/30/03
Legend Sample ID's 0301-00711-002; 0301-00719-001; 0301-00725-001; 0301-00734-001; 0301-00736-001

Matrix Spike ID: 0301-00711-002

Analyte	Method	Spike Conc. (ppm)	MS % Rec	MSD % Rec	Method Blank (ppm)	ICV %Rec	CCV %Rec	LFB %Rec
Lead	EPA 200.9	0.020	120	115	<PQL	100	100	95
Selenium	EPA 200.9	0.020	110	110	<PQL	110	110	100

MI = Matrix Interference
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
PQL = Practical Quantitation Limit

MS = Matrix Spike
MSD = Matrix Spike Duplicate.
LFB = Laboratory Fortified Blank

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Quality Control Data Report

Analysis Date: 01/29/03
Legend Sample ID: 0301-00702-001, 002; 0301-00711-002; 0301-00719-001; 0301-00725-001; 0301-00734-001; 0301-00477-002; 0301-00731-001

Matrix Spike ID: 0301-00734-001

Analyte	Method	Spike Conc. (ppm)	MS %Rec	MSD %Rec	Method Blank (ppm)	ICV %Rec	CCV %Rec	LFB %Rec
Barium	EPA 200.7	1	98	104	<PQL	105	106	99

MI = Matrix Interference
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
PQL = Practical Quantitation Limit

MS = Matrix Spike
MSD = Matrix Spike Duplicate.
LFB = Laboratory Fortifed Blank

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Quality Control Data Report

Analysis Date: 01/27/03
Legend Sample ID: 0301-725-001; 0301-734-001

Matrix Spike ID: 0301-711-002 not in set

Analyte	Method	Spike Conc. (ppm)	MS %Rec	MSD %Rec	Method Blank (ppm)	ICV %Rec	CCV %Rec	LFB %Rec
Beryllium	EPA 200.7	0.5	104	105	<PQL	97	99	
Cadmium	EPA 200.7	0.4	110	111	<PQL	106	109	
Chromium	EPA 200.7	0.5	103	104	<PQL	98	98	
Nickel	EPA 200.7	1	107	108	<PQL	102	105	

MI = Matrix Interference
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
PQL = Practical Quantitation Limit
MS = Matrix Spike
MSD = Matrix Spike Duplicate.
LFB = Laboratory Fortifed Blank

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Quality Control Data Report

Analysis Date: 1/28/03

Legend Sample ID's: 0301-00731-001, 002,004,005; 0301-00734-001; 0301-00742-001; 0301-00770-001; 0301-00771-001

Matrix Spike ID: **0301-770-001**

Analyte	Method	Spk Conc. (ppm)	MS %Rec	MSD %Rec	Blk (ppm)	ICV %Rec	CCV %Rec
Mercury	EPA 245.1/EPA 7470A	0.001	109	106	<PQL	106	100

NOTES:

MI = Matrix Interference
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
MS = Matrix Spike
MSD = Matrix Spike Duplicate.
RPD = Relative Percent Difference
BLK = Blank

012803hg

Master: QC2007.xls

LEGEND
Technical Services Of Arizona, Inc.

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(602) 324-6100 • Fax(602) 324-6101

☐ 4837 East Fifth Street, Suite 103, Tucson AZ 85711
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CHAIN OF CUSTODY RECORD

Laboratory Sample No.

Please Print Clearly

Page ____ of ____

CLIENT INFORMATION

Client Name	Address	City	State	Zip	Phone	Fax

Project Name	Project Number	Contact	P.O. No.	Fax Results ☐ QC Report ☐ Special Detection Limits ☐

SAMPLE TYPE CODES

DW=Drinking Water
WW=Wastewater
SW=Surface Water
GW=Groundwater
O=Other____
S=Soil/Solid
T=Travel Blank
F=Food
G=Sludge

TURN AROUND TIME

☐ Standard 10 - 15 Day
☐ Other____

Laboratory Authorization Required for Rush ★ ★

REQUESTED ANALYSES

Client's Sample Identification	Date	Time	Sample Location	Composite	Grab	Sample Type	Compliance	No. of Containers	pH ✓ (Lab Use only!)																	LAB NO.

TO ENSURE COMPLETION OF ANALYSIS, SAMPLES MUST BE RECEIVED AT LEAST 3 HOURS PRIOR TO THE HOLD TIME EXPIRATION.

Comments / Special Instructions: ____

SAMPLE CONDITION UPON RECEIPT

No. of Containers	
Temperature	
Custody Seals	Y N
Seals Intact	Y N
Preserved	Y N

WHITE-LAB YELLOW-LAB PINK-CLIENT

	RELINQUISHED BY		SAMPLES RECEIVED BY	
①	Sampler Signature	Date	Signature	Date
	Sampler Printed Name	Time	Printed Name	Time
②	Signature	Date	Signature	Date
	Printed Name	Time	Printed Name	Time
③	Signature	Date	Signature	Date
	Printed Name	Time	Printed Name	Time