113836

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DATE: NOVEMBER 14, 1989

SUBJECT: INORGANIC DATA VALIDATION, Case 12648
SITE: KEYSTONE SANITATION

FROM: MAHBOOBEH MECANIC MM
ESAT SENIOR INORGANIC DATA REVIEWER

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THRU: RICHARD D. DRESSER
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OVERVIEW

The set of samples for Case 12648 contained one (1) aqueous and fifty-three (53) soil samples which were analyzed through the Contract Laboratory Program (CLP) Routine Analytical Services. The samples were analyzed under three (3) sample delivery groups (SDG's) and the data was submitted as three separate and complete data packages. The list of samples analyzed under each SDG is shown below:

SDG Number	Sample Numbers
MCCB21	MCCB21-MCCB40
MCCB41	MCCB41-MCCB60
MCCB61	MCCB61-MCCB74

The sample set contained one (1) aqueous rinsate blank and five (5) soil field duplicate pairs.

SUMMARY

All analytes with the exception of those qualified "R" were successfully analyzed in all samples.

The data summary forms in this report present results grouped by SDG, and the data are qualified per SDG.

Areas of concern with respect to data usability are listed according to the seriousness of the problem. These include:

MAJOR PROBLEM

Several matrix spike recoveries were extremely low (<30%). The quantitation limits for the samples in the affected analytes may be biased extremely low and have been qualified "R" as summarized in the following table:

Analyte	SDG number
Tl	MCCB21
Tl	MCCB41
Tl,Sb	MCCB61

MINOR ISSUES

The preparation blank for sample MCCB74 (SDG#MCCB61) had a result >IDL for the Na analyte. The reported result for Na in sample MCCB74 which is <5x the blank concentration may be biased high and, therefore, has been qualified "B".

The laboratory duplicate results were outside of the control limits for the Ca, Cu and Mg analytes for samples under SDG#MCCB41 and for the Cu and Pb analytes for samples under SDG#MCCB61. Therefore, the reported results for these analytes have been qualified estimated, "J".

The correlation coefficients of the standard curve used to generate results were <0.995 for the As and Se analytes in several analyses. The quantitation limits and reported results for As and Se in the affected samples have been qualified estimated as summarized in the following table:

Analyte	SDG#	Samples Affected	Reported Result	Quantitation Limit
As	MCCB21	MCCB35-MCCB40	J	-
Se	MCCB21	All samples	-	UJ
As	MCCB41	MCCB41-MCCB49	J	-
Se	MCCB41	All samples	-	UJ
Se	MCCB61	All samples	J	UJ

Replicate method of standard addition (MSA) analyses were performed for the Pb analyte in samples MCCB24. Both the correlation coefficients of the MSAs were <0.995. Therefore, the reported result for Pb in sample MCCB24 has been qualified estimated "J".

Several matrix spike recoveries were low (30-74%) or high (>125%) in the analyses. The quantitation limits and reported results may be biased and have been qualified accordingly for the analytes in the affected samples as summarized in the following table:

Analyte	SDG#	Recovery	Reported Result	Quantitation Limit
Sb,As,Cd, Se	MCCB21	Low	L*	UL*
As,Cd,Se	MCCB61	Low	L	UL*
Co	MCCB61	High	K	N/A

* = The qualifiers "J" and "UJ" denoting estimated values supersede the qualifiers "L" and "UL" issued in this table for As and Se in the affected samples.

N/A = Not Applicable.

The analytical spike recovery was high for the Pb analyte in sample MCCB33 (SDG#MCCB21). The reported result for Pb in sample MCCB33 may be biased high and, therefore, has been qualified "K".

Several samples had low analytical spike recoveries for the Se analyte in each SDG. The quantitation limits and reported results for Se in the affected samples may be biased low, however, they have been qualified estimated, due to the low correlation coefficients as previously mentioned.

Notes:

Samples MCCB44; MCCB46-MCCB54 (SDG#MCCB41) had elevated detection limits for the Tl analyte due to the dilution of the samples. This is indicated on the data summary forms by a "+" sign.

The data was reviewed in accordance with the National Functional Guidelines for Evaluating Inorganic Analyses.

INFORMATION REGARDING REPORT CONTENT

Table 1A is a summary of qualifiers added to the laboratory's results during evaluation.

ATTACHMENTS

TABLE 1A	SUMMARY OF QUALIFIERS ON DATA SUMMARY AFTER DATA VALIDATION
TABLE 1B	CODES USED IN COMMENTS COLUMN
TABLE 2	GLOSSARY OF DATA QUALIFIER CODES
TABLE 3	DATA SUMMARY FORMS
APPENDIX A	RESULTS REPORTED BY LABORATORY FORM I's
APPENDIX B	DPO REPORT
APPENDIX C	SUPPORT DOCUMENTATION

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TABLE 1A

SUMMARY OF QUALIFIERS ON DATA SUMMARY
AFTER DATA VALIDATION

ANALYTE	SAMPLES AFFECTED	POSITIVE VALUES	NON-DETECTED VALUES	BIAS	COMMENTS*
Sb	All samples under SDG#MCCB21	L	UL	Low	A (39.6%)
	All samples under SDG#MCCB61 except MCCB74		R	Extremely Low	B (28.0%)
As	MCCB21 - MCCB34 (SGD#MCCB21)	L		Low	A (72.2%)
	MCCB35-MCCB40 (SDG#MCCB21)	J			C (0.9939) A (72.2%)
	MCCB41-MCCB49 (SDG#MCCB41)	J			C (0.994%)
	All samples under SDGM#MCCB61 except MCCB74	L		Low	A (74.8%)
Cd	All samples under SDG#MCCB21		UL	Low	A (65.3%)
	All samples under SDG#MCCB61 except MCCB74		UL	Low	A (70.1%)
Ca	All samples under SDG#MCCB41	J			D (±2134 ppm)
Co	All samples under SDG#MCCB61 except MCCB74	K		High	E (138%)
Cu	All samples under SDG#MCCB41	J			D (±10.6 ppm)
	All samples under SDG#MCCB61 except MCCB74	J			D (±11.8 ppm)

* See explanation of comments in Table 1B

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TABLE 1A (CONT'D)

SUMMARY OF QUALIFIERS ON DATA SUMMARY
AFTER DATA VALIDATION

ANALYTE	SAMPLES AFFECTED	NON-POSITIVE VALUES	DETECTED VALUES	BIAS	COMMENTS*
Pb	MCCB24 (SDG#MCCB21)	J			F (0.9790)
	MCCB33 (SDG#MCCB21)	K		High	G (117%)
	All samples under SDG#MCCB61 except MCCB74	J			D (126%)
Mg	All samples under SDG#MCCB41	J			D (±2134 ppm)
Se	All samples under SDG#MCCB21 except MCCB27;MCCB29		UJ		C (0.9894;0.9849) A (30.2%) H (50.0-80.8%)
	MCB27;MCCB29		UJ		C (0.989) A (30.2%)
	MCCB41;MCCB44; MCCB45;MCCB47-MCCB51;MCCB53; MCCB54;MCCB57 (SDG#MCCB41)		UJ		C (0.9835;.9929) H (66.2-80.8%)
	MCCB42;MCCB43; MCCB46;MCCB52; MCCB55;MCCB56; MCCB58-MCCB60 (SDG#MCCB41)		UJ		C (0.9935,0.9929)
	MCCB61;MCCB63; MCCB64;MCCB67-MCCB71 (SDG#MCCB61)	J	UJ		C (0.9909) A (40.1%) H (60.7-83.1%)
	MCCB62;MCCB65; MCCB66;MCCB72; MCCB73 (SDG#MCCB61)		UJ		C (0.9909) A (40.1%)

* See explanation of comments in Table 1B.

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TABLE 1A (CONT'D)

SUMMARY OF QUALIFIERS ON DATA SUMMARY AFTER DATA VALIDATION

ANALYTE	SAMPLES AFFECTED	POSITIVE VALUES	NON-DETECTED VALUES	BIAS	COMMENTS*
Se	MCCB74 (SDG#MCCB61)		UJ		C (0.9909)
Na	MCCB74 (SDG#MCCB61)	B		High	I (86.3 ppb)
Tl	All samples under SDG#MCCB21		R	Extremely Low	B (9.0%)
	All samples under SDG#MCCB41		R	Extremely Low	B (8.3%)
	All samples under SDG#MCCB61 except MCCB74		R	Extremely Low	B (8.6%)

* See explanation of comments in Table 1B.

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TABLE 1B

CODES USED IN COMMENTS COLUMN

A = Due to a low matrix spike recovery (% recovery is in parentheses), the reported results and/or quantitation limits may be biased low.

B = Due to an extremely low matrix spike recovery (% recovery is in parentheses), the quantitation limits may be biased extremely low.

C = The correlation coefficients of the standard curve were <0.995, (values are in parentheses), therefore the quantitation limits and/or reported results are estimated.

D = The laboratory duplicate result was outside of the control limits, ±2xCRDL or RPD >35%, (2xCRDL or relative percent difference is in parentheses). Therefore, the reported results are estimated.

E = Due to a high matrix spike recovery (% recovery is in parentheses), the reported results may be biased high.

F = Both the correlation coefficients of the MSAs were <0.995, (maximum value is in parentheses). Therefore, the reported resu is estimated.

G = Due to a high analytical spike recovery (% recovery is in parentheses), the reported result may be biased high.

H = Due to the low analytical spike recoveries (% recoveries are in parentheses), the quantitation limits and/or reported results may be biased low.

I = The preparation blank had a result >IDL (the result is in parentheses) and the reported result was <5x the blank. The reported result may be biased high.

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TABLE 2

GLOSSARY OF DATA QUALIFIER CODES (INORGANIC)

CODES RELATED TO IDENTIFICATION
(confidence concerning presence or absence of analytes):

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

(NO CODE) = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unreliable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

CODES RELATED TO QUANTITATION
(can be used for both positive results and sample quantitation limits):

J = Analyte Present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

[] = Analyte present. As values approach the IDL the quantitation may not be accurate.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

Q = No analytical result.

Table 3

SDG # MCCB21

DATA SUMMARY FORM: I N O R G A N I C S

*Site Name: Keystone Sanitation

SOIL SAMPLES (mg/Kg)

Case #: 12648 Sampling Date(s): 8/28-30/87

*Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

CRDL	Sample No.	MCCB21		MCCB22		MCCB23		MCCB24		MCCB25		MCCB26		MCCB27		MCCB28		MCCB29		MCCB30	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
	% Solids	87.6		87.9		86.1		86.5		70.1		78.2		64.1		80.1		75.6		82.1	
	Location	SL-01-1		SL-01-2		SL-02-1		SL-02-2		SL-03-1		SL-03-2		SL-04-1		SL-04-2		SL-05-1 Dup. of MCCB69		SL-05-2	
	ANALYTE																				
40	Aluminum	13300		12900		10700		13900		13600		13000		13700		10800		16000		14500	
12	Antimony		UL		UL	[6.0]	L		UL		UL		UL		UL		UL		UL		UL
2	Arsenic	3.5	L	3.4	L	[1.5]	L	[0.64]	L	4.2	L	3.4	L	4.2	L	[2.1]	L	4.8	L	3.4	L
40	Barium	80.9		77.1		55.3		47.7		130		59.0		134		72.1		130		86.4	
1	Beryllium	[0.60]						[0.50]		[0.67]				[0.64]				[0.68]			
1	Cadmium		UL		UL		UL		UL		UL		UL		UL		UL		UL		UL
1000	Calcium	1660		1780		21700		11400		[1190]		[490]		1730		[728]		2260		[824]	
2	Chromium	20.0		18.9		17.2		21.7		15.0		19.9		16.7		16.1		18.5		18.1	
10	Cobalt	20.4		20.7		25.6		28.9		49.3		14.3		59.1		17.8		44.9		34.0	
5	Copper	24.9		18.8		34.5		43.3		17.8		22.6		24.2		13.0		13.4		11.7	
20	Iron	37300		32600		30300		35300		29300		36400		33200		31600		31100		30200	
1	*Lead	32.0		32.7		27.5		47.4	J	62.4		34.3		56.7		15.3		80.0		28.6	
1000	Magnesium	1990		1650		10800		8720		[731]		[754]		[1500]		[853]		1350		[1100]	
3	Manganese	761		919		730		573		3480		496		3700		860		3620		1930	
0.2	Mercury									0.71				1.2		0.12		0.57		0.21	
8	Nickel	13.0		12.1		26.3		29.1		12.7		[6.3]		16.4		[6.7]		12.7		[8.9]	
1000	Potassium	[542]		[529]		[406]		[377]		[502]		[441]		[608]		[486]		[617]		[506]	
1	Selenium		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ
2	Silver																				
1000	Sodium	[38.8]		[37.6]		[265]		[126]		[80.6]		[74.6]		[95.6]		[74.1]		[113]		[101]	
2	Thallium		R		R		R		R		R		R		R		R		R		R
10	Vanadium	24.8		23.0		14.3		16.1		25.3		27.4		27.5		23.2		32.9		29.4	
4	Zinc	86.1		86.4		95.5		106		54.5		33.2		71.4		37.0		53.9		36.6	
2	Cyanide																				

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

AR305855

Table 3

SDG # MCCB21

DATA SUMMARY FORM: I N O R G A N I C S

*Site Name: Keystone Sanitation

SOIL SAMPLES (mg/Kg)

Case #: 12648 Sampling Date(s): 8/28-30/87

*Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

CRDL	ANALYTE	MCCB31		MCCB32		MCCB33		MCCB34		MCCB35		MCCB36		MCCB37		MCCB38		MCCB39		MCCB4	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
	% Solids	85.1		86.5		78.9		81.1		80.9		82.1		80.7		81.3		84.8		83.1	
	Location	SL-06-1		SL-06-2		SL-07-1		SL-07-2		SL-08-1		SL-08-2		SL-09-1		SL-09-2		SL-10-1		SL-10-2 Dup. of MCCB 70	
40	Aluminum	13400		15300		10800		11600		12600		11400		13700		14100		12100		13600	
12	Antimony		UL		UL		UL		UL		UL	[6.3]	L		UL		UL	[8.7]	L		U
2	Arsenic	2.8	L	2.7	L	2.5	L	[2.1]	L	2.6	J	[2.3]	J	3.7	J	3.7	J	3.4	J	3.2	J
40	Barium	77.1		78.9		60.5		59.4		62.8		57.3		112		121		92.5		98.5	
1	Beryllium	[0.64]		[0.59]				[0.52]						[0.67]		[0.70]				[0.54]	
1	Cadmium		UL		UL		UL		UL		UL		UL		UL		UL		UL		U
1000	Calcium	[196]		[108]		[820]		[551]		[898]		[908]		1450		1560		[1060]		1120	
2	Chromium	18.6		21.5		18.3		21.1		20.1		22.6		19.1		19.8		20.4		21.0	
10	Cobalt	21.2		20.5		13.3		13.8		12.6		[10.8]		23.6		25.6		23.8		23.8	
5	Copper	17.1		18.5		15.1		11.9		13.9		14.0		17.0		17.1		17.2		20.0	
20	Iron	34000		37400		30100		37500		33200		33400		31100		30400		33800		37400	
1	*Lead	31.9		18.5		27.5	K	23.9		26.9		23.4		31.6		28.4		27.9		27.0	
1000	Magnesium	[631]		[811]		[1020]		1390		[1010]		[953]		[1090]		[1110]		[814]		[967]	
3	Manganese	1030		576		606		822		468		433		1780		2100		1300		1330	
0.2	Mercury	0.11												0.10		0.11					
8	Nickel	[6.1]		[7.1]		[8.0]		10.9		[6.7]		[6.4]		[7.6]		[7.8]		[6.2]		[7.2]	
1000	Potassium	[599]		[604]		[422]		[417]		[541]		[465]		[912]		[692]		[587]		[706]	
1	Selenium		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		U
2	Silver															4.2					
1000	Sodium	[41.3]		[45.3]		[41.9]		[44.2]		[60.1]		[469]		[47.1]		[62.5]		[34.9]		[36.8]	
2	Thallium		R		R		R		R		R		R		R		R		R		
10	Vanadium	26.9		30.7		21.5		25.0		24.4		24.0		25.9		26.2		24.2		26.3	
4	Zinc	32.5		34.6		38.7		40.5		35.3		33.1		35.6		37.0		29.3		35.3	
2	Cyanide																				

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

Table 3

SDG # MCCB41

DATA SUMMARY FORM: INORGANICS

Site Name: Keystone Sanitation

SOIL SAMPLES (mg/Kg)

Case #: 12648 Sampling Date(s): 8/28-30/89

*Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

CRDL	Sample No.	MCCB41		MCCB42		MCCB43		MCCB44		MCCB45		MCCB46		MCCB47		MCCB48		MCCB49		MCCB50	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
	% Solids	91.0		89.3		81.4		84.4		70.8		77.3		82.0		85.6		78.8		82.4	
	Location	SL-11-1		SL-11-2		SL-12-1		SL-12-2 Dup. of MCCB71		SL-13-1		SL-13-2		SL-14-1		SL-14-2		SL-15-1		SL-15-2	
	ANALYTE																				
40	Aluminum	8210		9080		13800		13700		13700		16400		14400		11400		13600		12800	
12	Antimony																				
2	Arsenic	[1.3]	J	[2.1]	J	[1.4]	J	4.3	J	4.1	J	3.8	J	3.4	J	3.1	J	[2.4]	J	3.3	
40	Barium	[18.7]		[31.6]		78.6		87.8		113		148		141		59.4		77.4		73.2	
1	Beryllium			[0.63]		[0.62]		[0.61]		[0.63]		[0.80]		[0.85]		[0.75]		[0.64]		[0.70]	
1	Cadmium																				
1000	Calcium	3880	J	35300	J	1210	J	[851]	J	1670	J	1320	J	3290	J	2920	J	7330	J	3110	J
2	Chromium	13.4		13.4		18.4		16.0		15.0		24.9		21.8		26.1		19.3		20.5	
10	Cobalt	11.2		15.6		17.3		19.6		15.7		21.8		25.8		16.7		28.2		16.3	
5	Copper	13.5	J	22.7	J	14.5	J	11.5	J	38.2	J	28.9	J	21.5	J	17.0	J	18.6	J	14.9	J
20	Iron	21900		23900		29100		27000		27100		33400		36400		45000		31700		32700	
1	*Lead	10.5		9.2		15.1		21.1		33.2		37.4		21.3		23.1		22.6		21.5	
1000	Magnesium	4320	J	15400	J	1560	J	1660	J	[1270]	J	1360	J	1780	J	1780	J	3200	J	1700	J
3	Manganese	231		331		842		971		808		1180		1370		897		696		613	
0.2	Mercury									0.13		0.11									
8	Nickel	15.6		18.9		12.0		13.3		11.6		15.1		15.8		9.8		14.3		11.6	
1000	Potassium	[207]		[477]		[710]		[635]		[932]		[891]		[703]		[412]		[693]		[511]	
1	Selenium		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ
2	Silver																				
1000	Sodium	[37.4]		[73.5]		[35.0]		[32.6]		[64.6]		[70.3]		[67.2]		[55.1]		[82.7]		[99.1]	
2	Thallium		R		R		R	+	R		R	+	R	+	R	+	R	+	R	+	R
10	Vanadium	[8.4]		10.8		22.9		21.0		20.4		24.5		27.0		29.9		23.7		23.8	
4	Zinc	70.7		97.9		55.9		55.5		79.5		132		84.0		53.4		65.7		53.3	
2	Cyanide																				

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

AR305585

Table 3

SDG MCCB41

DATA SUMMARY FORM: INORGANICS

Site Name: Keystone Sanitation

Case #: 12648 Sampling Date(s): 8/28-30/89

SOIL SAMPLES (mg/Kg)

*Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

CRDL	ANALYTE	MCCB51		MCCB52		MCCB53		MCCB54		MCCB55		MCCB56		MCCB57		MCCB58		MCCB59		MCCB60	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
	% Solids	83.1		83.4		81.7		84.1		87.8		83.5		87.9		86.9		86.6		79.9	
	Location	SL-16-1 Dup. of MCCB72		SL-16-2		SL-17-1		SL-17-2		SL-18-1 Dup. of MCCB73		SL-18-2		SL-19-1		SL-19-2		SL-20-1		SL-20-2	
40	Aluminum	6440		11200		14700		14000		16800		17400		19200		19700		12800		14500	
12	Antimony																				
2	Arsenic	3.2		3.6		3.1		3.3		3.7		2.7		2.2		2.6		3.7		3.0	
40	Barium	[34.4]		164		106		109		90.8		90.5		97.6		114		68.3		65.5	
1	Beryllium			[0.88]		[0.75]		[0.66]		[1.0]		[0.85]		1.5		[0.78]		[0.98]		[0.92]	
1	Cadmium																				
1000	Calcium	[829]	J	2230	J	1280	J	1280	J	[749]	J	[1030]	J	[1077]	J	[171]	J	2450	J	1410	J
2	Chromium	10.7		14.9		20.7		22.3		32.2		24.8		19.1		18.1		20.6		22.8	
10	Cobalt	[10.7]		36.6		28.4		24.6		28.9		19.3		26.7		24.5		12.2		14.9	
5	Copper	8.3	J	18.5	J	12.2	J	12.3	J	21.3	J	21.5	J	27.1	J	16.3	J	21.2	J	20.6	J
20	Iron	17400		29300		30000		30600		43600		37000		33100		32600		41200		44000	
1	*Lead	19.5		21.5		22.4		19.8		19.9		34.5		17.3		23.7		18.7		17.4	
1000	Magnesium	[671]	J	1580	J	2280	J	1910	J	2580	J	2370	J	1340	J	1840	J	[965]	J	[976]	J
3	Manganese	470		4420		990		835		1510		889		915		806		414		429	
0.2	Mercury																				
8	Nickel	[7.2]		16.0		17.4		14.9		20.5		17.5		13.1		15.5		9.5		[9.8]	
1000	Potassium	[283]		[498]		[524]		[455]		[621]		[606]		1400		[626]		[938]		[692]	
1	Selenium		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ
2	Silver																				
1000	Sodium	[35.8]		[26.5]		[45.4]		[45.1]		[37.5]		[41.1]		[42.9]		[38.8]		[31.1]		[52.0]	
2	Thallium	+	R	+	R	+	R	+	R		R		R		R		R	:	R		R
10	Vanadium	12.9		22.5		23.0		23.4		34.7		32.5		26.9		25.8		27.0		29.5	
4	Zinc	23.7		47.8		63.7		56.0		75.7		70.5		54.5		69.1		46.0		44.6	
2	Cyanide																				

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

R305856

Table 3
SDG # MCCB61

DATA SUMMARY FORM: I N O R G A N I C S

Site Name: Keystone Sanitation

SOIL SAMPLES (mg/Kg)

Case #: 12648 Sampling Date(s): 8/28-30/88

*Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

AR305857

CRDL	ANALYTE	MCCB61		MCCB62		MCCB63		MCCB64		MCCB65		MCCB66		MCCB67		MCCB68		MCCB69		MCCB70	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
	% Solids	84.9		83.7		87.2		75.3		86.3		91.7		69.3		81.6		76.4		84.1	
	Location	SL-21-1		SL-21-2		SL-22-1		SL-22-2		SL-23-1		SL-23-2		SL-24-1		SL-24-2		SL-05-1D Dup. of MCCB 29		SL-10-1 Dup. of MCCB 40	
40	Aluminum	16300		14400		21000		27000		18400		20000		22900		23200		20000		17600	
12	Antimony		R		R		R		R		R		R		R		R		R		
2	Arsenic	6.1	L	5.1	L	4.7	L	5.9	L	8.6	L	5.6	L	5.7	L	4.5	L	4.1	L	2.7	
40	Barium	69.8		57.2		164		211		96.7		74.0		107		91.2		135		102	
1	Beryllium	[0.73]		[0.54]		1.4		1.6		[0.68]		1.3		[0.54]		[0.73]		1.5		[0.85]	
1	Cadmium		UL		UL		UL		UL		UL		UL		UL		UL		UL		
1000	Calcium	15000		8570		1700		1560		2180		5000		2770		1300		2050		[997]	
2	Chromium	24.4		21.7		21.3		27.0		19.5		20.0		25.1		26.6		21.3		27.1	
10	Cobalt	16.9	K	14.5	K	25.1	K	32.9	K	21.2	K	17.8	K	20.7	K	17.8	K	47.4	K	27.4	
5	Copper	14.6	J	16.2	J	21.3	J	31.6	J	22.3	J	25.1	J	24.9	J	20.5	J	11.2	J	18.8	
20	Iron	41200		44200		39100		45700		36600		29000		41100		43800		34300		41300	
1	*Lead	33.0	J	33.4	J	63.1	J	71.8	J	102	J	69.0	J	35.2	J	24.3	J	70.0	J	22.7	
1000	Magnesium	5910		2910		3170		3820		3520		7610		3050		4020		1440		1360	
3	Manganese	572		478		1420		1670		1100		1100		751		603		3620		1430	
0.2	Mercury																	0.48			
8	Nickel	10.6		8.8		22.0		29.3		24.7		26.9		20.8		25.4		16.7		13.1	
1000	Potassium	[776]		[633]		1120		[1100]		[598]		1830		[1140]		[819]		[860]		[835]	
1	Selenium		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ	[0.81]	J	[0.47]	
2	Silver																				
1000	Sodium	[88.5]		[67.0]		[60.3]		[81.8]		[93.4]		[587]		[155]		[87.1]		[142]		[63.4]	
2	Thallium		R		R		R		R		R		R		R		R		R		
10	Vanadium	28.8		29.7		30.3		35.3		28.1		28.7		29.7		30.3		36.2		28.7	
4	Zinc	51.4		38.4		131		140		149		134		113		109		56.1		46.6	
2	Cyanide					1.3															

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

Table 3
SDG mCCB61

DATA SUMMARY FORM: I N O R G A N I C S

Site Name: Keystone Sanitation

SOIL SAMPLES (mg/Kg)

Case #: 12648 Sampling Date(s): 8/28-30/87

*Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

CRDL	ANALYTE	MCCB71		MCCB72		MCCB73	
	Dilution Factor	1.0		1.0		1.0	
	% Solids	84.2		83.8		87.6	
	Location	SL-12-2D Dup. of MCCB44		SL-16-1D Dup. of MCCB51		SL-18-1D Dup. of MCCB55	
40	Aluminum	16300		12400		15200	
12	Antimony		R		R		R
2	Arsenic	3.3	L	2.9	L	3.6	L
40	Barium	95.1		81.0		80.1	
1	Beryllium	[0.88]		[0.65]		1.5	
1	Cadmium		UL		UL		UL
1000	Calcium	[765]		1720		[663]	
2	Chromium	18.7		27.5		26.8	
10	Cobalt	20.5	K	25.7	K	24.3	K
5	Copper	9.5	J	11.0	J	12.7	J
20	Iron	31300		37800		38700	
1	*Lead	21.7	J	18.1	J	5.1	J
1000	Magnesium	1630		1420		2300	
3	Manganese	1000		903		1300	
0.2	Mercury						
8	Nickel	14.1		10.8		17.5	
1000	Potassium	[750]		[584]		[582]	
1	Selenium		UJ		UJ		UJ
2	Silver						
1000	Sodium	[46.7]		[70.7]		[48.6]	
2	Thallium		R		R		R
10	Vanadium	25.0		26.6		29.7	
4	Zinc	56.5		48.5		65.3	
2	Cyanide						

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

AR305858

Table 3

SDG # MCCB61

DATA SUMMARY FORM: INORGANICS

WATER SAMPLES (ug/L)

Site Name: Keystone Sanitation

Case #: 12648 Sampling Date(s): 8/29-30/89

*Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

CRDL	ANALYTE																								
	Sample No.	MCCB74																							
	Dilution Factor	1.0																							
	Location	SL-01R Rinsate Blank																							
200	Aluminum																								
60	Antimony																								
10	*Arsenic																								
200	Barium																								
5	Beryllium																								
5	*Cadmium																								
5000	Calcium	[59.6]																							
10	*Chromium																								
50	Cobalt																								
25	Copper																								
100	Iron																								
5	*Lead	[1.4]																							
5000	Magnesium																								
15	Manganese	[5.3]																							
0.2	Mercury																								
40	*Nickel	[7.3]																							
5000	Potassium																								
5	Selenium		UJ																						
10	Silver																								
5000	Sodium	[84.3]	B																						
10	Thallium																								
50	Vanadium																								
20	Zinc																								
10	*Cyanide																								

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

WESTON SM

APPENDIX A

RESULTS REPORTED BY LABORATORY

FORM I'S

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB21

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-01S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 87.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13300.00			P
7440-36-0	Antimony	6.20	U	N	P
7440-38-2	Arsenic	3.50		N	F
7440-39-3	Barium	80.90			P
7440-41-7	Beryllium	0.60	B		P
7440-41-7	Cadmium	0.91	U	N	P
7440-70-2	Calcium	1660.00			P
7440-47-3	Chromium	20.00			P
7440-48-4	Cobalt	20.40			P
7440-50-8	Copper	24.90			P
7439-89-6	Iron	37300.00			P
7439-92-1	Lead	32.00			F
7439-95-4	Magnesium	1990.00			P
7439-96-5	Manganese	761.00			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	13.00			P
7440-09-7	Potassium	542.00	B		P
7782-49-2	Selenium	0.65	U	NW	F
7440-22-4	Silver	2.10	U		P
7440-23-5	Sodium	38.80	B		P
7440-28-0	Thallium	0.65	U	N	F
7440-62-2	Vanadium	24.80			P
7440-66-6	Zinc	86.10			P
	Cyanide	1.10	U		AS

000003

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

FORM I - IN 7/88

AR305861

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB22

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-02S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 87.9

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12900.00			P
7440-36-0	Antimony	6.10	U	N	P
7440-38-2	Arsenic	3.40		N	F
7440-39-3	Barium	97.10			P
7440-41-7	Beryllium	0.45	U		P
7440-41-7	Cadmium	0.90	U	N	P
7440-70-2	Calcium	1780.00			P
7440-47-3	Chromium	18.90			P
7440-48-4	Cobalt	20.70			P
7440-50-8	Copper	18.80			P
7439-89-6	Iron	32600.00			P
7439-92-1	Lead	32.70			F
7439-95-4	Magnesium	1650.00			P
7439-96-5	Manganese	919.00			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.10			P
7440-09-7	Potassium	529.00	B		P
7782-49-2	Selenium	0.64	U	NW	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	37.60	B		P
7440-28-0	Thallium	0.64	U	N	F
7440-62-2	Vanadium	23.00			P
7440-66-6	Zinc	86.40			P
	Cyanide	1.10	U		AS

000004

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB23

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-03S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 86.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10700.00			P
7440-36-0	Antimony	6.00	B	N	P
7440-38-2	Arsenic	1.50	B	N	F
7440-39-3	Barium	55.30			P
7440-41-7	Beryllium	0.43	U		P
7440-41-7	Cadmium	0.87	U	N	P
7440-70-2	Calcium	21700.00			P
7440-47-3	Chromium	17.20			P
7440-48-4	Cobalt	25.60			P
7440-50-8	Copper	34.50			P
7439-89-6	Iron	30300.00			P
7439-92-1	Lead	27.50			F
7439-95-4	Magnesium	10800.00			P
7439-96-5	Manganese	730.00			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	26.30			P
7440-09-7	Potassium	406.00	B		P
7782-49-2	Selenium	0.62	U	NW	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	265.00	B		P
7440-28-0	Thallium	0.62	U	N	F
7440-62-2	Vanadium	14.30			P
7440-66-6	Zinc	95.50			P
	Cyanide	1.20	U		AS

000005

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

FORM I - IN 7/88

AR305863

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB24

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-04S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 86.5

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13900.00			P
7440-36-0	Antimony	5.90	U	N	P
7440-38-2	Arsenic	0.64	B	N	F
7440-39-3	Barium	47.70			P
7440-41-7	Beryllium	0.50	B		P
7440-41-7	Cadmium	0.88	U	N	P
7440-70-2	Calcium	11400.00			P
7440-47-3	Chromium	21.70			P
7440-48-4	Cobalt	28.90			P
7440-50-8	Copper	43.30			P
7439-89-6	Iron	35300.00			P
7439-92-1	Lead	47.40		+	F
7439-95-4	Magnesium	8720.00			P
7439-96-5	Manganese	573.00			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	29.10			P
7440-09-7	Potassium	377.00	B		P
7782-49-2	Selenium	0.62	U	NW	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	126.00	B		P
7440-28-0	Thallium	0.62	U	N	F
7440-62-2	Vanadium	16.10			P
7440-66-6	Zinc	106.00			P
	Cyanide	1.10	U		AS

CC3006

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

AR305864

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB25

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-05S

Level (low/med): LOW Date Received: 08/31/89

%. Solids: 70.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13600.00			P
7440-36-0	Antimony	6.90	U	N	P
7440-38-2	Arsenic	4.20		N	F
7440-39-3	Barium	130.00			P
7440-41-7	Beryllium	0.67	B		P
7440-41-7	Cadmium	1.00	U	N	P
7440-70-2	Calcium	1190.00	B		P
7440-47-3	Chromium	15.00			P
7440-48-4	Cobalt	49.30			P
7440-50-8	Copper	17.80			P
7439-89-6	Iron	29300.00			P
7439-92-1	Lead	62.40			F
7439-95-4	Magnesium	731.00	B		P
7439-96-5	Manganese	3480.00			P
7439-97-6	Mercury	0.71			CV
7440-02-0	Nickel	12.70			P
7440-09-7	Potassium	502.00	B		P
7782-49-2	Selenium	0.81	U	NW	F
7440-22-4	Silver	2.30	U		P
7440-23-5	Sodium	80.60	B		P
7440-28-0	Thallium	0.81	U	N	F
7440-62-2	Vanadium	25.30			P
7440-66-6	Zinc	54.50			P
	Cyanide	1.40	U		AS

000007

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB26

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-06S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 78.2

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13000.00			P
7440-36-0	Antimony	6.60	U	N	P
7440-38-2	Arsenic	3.40		N	F
7440-39-3	Barium	59.00			P
7440-41-7	Beryllium	0.49	U		P
7440-41-7	Cadmium	0.97	U	N	P
7440-70-2	Calcium	490.00	B		P
7440-47-3	Chromium	19.90			P
7440-48-4	Cobalt	14.30			P
7440-50-8	Copper	22.60			P
7439-89-6	Iron	36400.00			P
7439-92-1	Lead	34.30			F
7439-95-4	Magnesium	754.00	B		P
7439-96-5	Manganese	496.00			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	6.30	B		P
7440-09-7	Potassium	441.00	B		P
7782-49-2	Selenium	0.74	U	NW	F
7440-22-4	Silver	2.20	U		P
7440-23-5	Sodium	74.60	B		P
7440-28-0	Thallium	0.74	U	N	F
7440-62-2	Vanadium	27.40			P
7440-66-6	Zinc	33.20			P
	Cyanide	1.30	U		AS

000008

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB27

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-07S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 64.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13700.00			P
7440-36-0	Antimony	8.10	U	N	P
7440-38-2	Arsenic	4.20		N	F
7440-39-3	Barium	134.00			P
7440-41-7	Beryllium	0.64	B		P
7440-41-7	Cadmium	1.20	U	N	P
7440-70-2	Calcium	1730.00			P
7440-47-3	Chromium	16.70			P
7440-48-4	Cobalt	59.10			P
7440-50-8	Copper	24.20			P
7439-89-6	Iron	33200.00			P
7439-92-1	Lead	56.70			F
7439-95-4	Magnesium	1500.00	B		P
7439-96-5	Manganese	3700.00			P
7439-97-6	Mercury	1.20			CV
7440-02-0	Nickel	16.40			P
7440-09-7	Potassium	608.00	B		P
7782-49-2	Selenium	0.92	U	N	F
7440-22-4	Silver	2.70	U		P
7440-23-5	Sodium	95.60	B		P
7440-28-0	Thallium	0.92	U	N	F
7440-62-2	Vanadium	27.50			P
7440-66-6	Zinc	71.40			P
	Cyanide	1.60	U		AS

C03009

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts:

Comments:

ROCKS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB28

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-08S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 80.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10800.00			P
7440-36-0	Antimony	6.40	U	N	P
7440-38-2	Arsenic	2.10	B	N	F
7440-39-3	Barium	72.10			P
7440-41-7	Beryllium	0.47	U		P
7440-41-7	Cadmium	0.94	U	N	P
7440-70-2	Calcium	728.00	B		P
7440-47-3	Chromium	16.10			P
7440-48-4	Cobalt	17.80			P
7440-50-8	Copper	13.00			P
7439-89-6	Iron	31600.00			P
7439-92-1	Lead	15.30			F
7439-95-4	Magnesium	853.00	B		P
7439-96-5	Manganese	860.00			P
7439-97-6	Mercury	0.12			CV
7440-02-0	Nickel	6.70	B		P
7440-09-7	Potassium	486.00	B		P
7782-49-2	Selenium	0.63	U	NW	F
7440-22-4	Silver	2.10	U		P
7440-23-5	Sodium	74.10	B		P
7440-28-0	Thallium	0.63	U	N	F
7440-62-2	Vanadium	23.20			P
7440-66-6	Zinc	37.00			P
	Cyanide	1.20	U		AS

000010

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts:

Comments:

ROCKS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB29

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-09S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 75.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16000.00			P
7440-36-0	Antimony	7.00	U	N	P
7440-38-2	Arsenic	4.80		N	F
7440-39-3	Barium	130.00			P
7440-41-7	Beryllium	0.68	B		P
7440-41-7	Cadmium	1.00	U	N	P
7440-70-2	Calcium	2260.00			P
7440-47-3	Chromium	18.50			P
7440-48-4	Cobalt	44.90			P
7440-50-8	Copper	13.40			P
7439-89-6	Iron	31100.00			P
7439-92-1	Lead	80.00		S	F
7439-95-4	Magnesium	1350.00			P
7439-96-5	Manganese	3620.00			P
7439-97-6	Mercury	0.57			CV
7440-02-0	Nickel	12.70			P
7440-09-7	Potassium	617.00	B		P
7782-49-2	Selenium	0.74	U	N	F
7440-22-4	Silver	2.30	U		P
7440-23-5	Sodium	113.00	B		P
7440-28-0	Thallium	0.74	U	N	F
7440-62-2	Vanadium	32.90			P
7440-66-6	Zinc	53.90			P
	Cyanide	1.30	U		AS

000011

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts:

Comments:

AR305869

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB30

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-10S

Level (low/med): LOW Date Received: 08/31/89

%. Solids: 82.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14500.00			P
7440-36-0	Antimony	6.40	U	N	P
7440-38-2	Arsenic	3.40		N	F
7440-39-3	Barium	86.40			P
7440-41-7	Beryllium	0.47	U		P
7440-41-7	Cadmium	0.95	U	N	P
7440-70-2	Calcium	824.00	B		P
7440-47-3	Chromium	18.10			P
7440-48-4	Cobalt	34.00			P
7440-50-8	Copper	11.70			P
7439-89-6	Iron	30200.00			P
7439-92-1	Lead	28.60			F
7439-95-4	Magnesium	1100.00	B		P
7439-96-5	Manganese	1930.00			P
7439-97-6	Mercury	0.21			CV
7440-02-0	Nickel	8.90	B		P
7440-09-7	Potassium	506.00	B		P
7782-49-2	Selenium	0.73	U	NW	F
7440-22-4	Silver	2.10	U		P
7440-23-5	Sodium	101.00	B		P
7440-28-0	Thallium	0.73	U	N	F
7440-62-2	Vanadium	29.40			P
7440-66-6	Zinc	36.60			P
	Cyanide	1.20	U		AS

000012

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB31

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-11S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 85.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13400.00			P
7440-36-0	Antimony	6.20	U	N	P
7440-38-2	Arsenic	2.80		N	F
7440-39-3	Barium	77.10			P
7440-41-7	Beryllium	0.64	B		P
7440-41-7	Cadmium	0.92	U	N	P
7440-70-2	Calcium	196.00	B		P
7440-47-3	Chromium	18.60			P
7440-48-4	Cobalt	21.20			P
7440-50-8	Copper	17.10			P
7439-89-6	Iron	34000.00			P
7439-92-1	Lead	31.90			F
7439-95-4	Magnesium	631.00	B		P
7439-96-5	Manganese	1030.00			P
7439-97-6	Mercury	0.11			CV
7440-02-0	Nickel	6.10	B		P
7440-09-7	Potassium	599.00	B		P
7782-49-2	Selenium	0.68	U	NW	F
7440-22-4	Silver	2.10	U		P
7440-23-5	Sodium	41.30	B		P
7440-28-0	Thallium	0.68	U	N	F
7440-62-2	Vanadium	26.90			P
7440-66-6	Zinc	32.50			P
	Cyanide	1.20	U		AS

000013

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

AR305871

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB32

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-12S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 86.5

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	15300.00			P
7440-36-0	Antimony	6.10	U	N	P
7440-38-2	Arsenic	2.70		N	F
7440-39-3	Barium	78.90			P
7440-41-7	Beryllium	0.59	B		P
7440-41-7	Cadmium	0.91	U	N	P
7440-70-2	Calcium	108.00	B		P
7440-47-3	Chromium	21.50			P
7440-48-4	Cobalt	20.50			P
7440-50-8	Copper	18.50			P
7439-89-6	Iron	37400.00			P
7439-92-1	Lead	18.50			F
7439-95-4	Magnesium	811.00	B		P
7439-96-5	Manganese	576.00			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	7.10	B		P
7440-09-7	Potassium	604.00	B		P
7782-49-2	Selenium	0.64	U	NW	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	45.30	B		P
7440-28-0	Thallium	0.64	U	N	F
7440-62-2	Vanadium	30.70			P
7440-66-6	Zinc	34.60			P
	Cyanide	1.10	U		AS

C00014

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB33

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-13S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 78.9

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10800.00			P
7440-36-0	Antimony	6.80	U	N	P
7440-38-2	Arsenic	2.50		N	F
7440-39-3	Barium	60.50			P
7440-41-7	Beryllium	0.50	U		P
7440-41-7	Cadmium	1.00	U	N	P
7440-70-2	Calcium	820.00	B		P
7440-47-3	Chromium	18.30			P
7440-48-4	Cobalt	13.30			P
7440-50-8	Copper	15.10			P
7439-89-6	Iron	30100.00			P
7439-92-1	Lead	27.50		W	F
7439-95-4	Magnesium	1020.00	B		P
7439-96-5	Manganese	606.00			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	8.00	B		P
7440-09-7	Potassium	422.00	B		P
7782-49-2	Selenium	0.75	U	NW	F
7440-22-4	Silver	2.30	U		P
7440-23-5	Sodium	41.90	B		P
7440-28-0	Thallium	0.75	U	N	F
7440-62-2	Vanadium	21.50			P
7440-66-6	Zinc	38.70			P
	Cyanide	1.30	U		AS

000015

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

FORM I - IN 7/88

AR305873

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB34

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-14S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 81.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11600.00			P
7440-36-0	Antimony	6.20	U	N	P
7440-38-2	Arsenic	2.10	B	N	F
7440-39-3	Barium	59.40			P
7440-41-7	Beryllium	0.52	B		P
7440-41-7	Cadmium	0.91	U	N	P
7440-70-2	Calcium	551.00	B		P
7440-47-3	Chromium	21.10			P
7440-48-4	Cobalt	13.80			P
7440-50-8	Copper	11.90			P
7439-89-6	Iron	37500.00			P
7439-92-1	Lead	23.90			F
7439-95-4	Magnesium	1390.00			P
7439-96-5	Manganese	822.00			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	10.90			P
7440-09-7	Potassium	417.00	B		P
7782-49-2	Selenium	0.65	U	NW	F
7440-22-4	Silver	2.10	U		P
7440-23-5	Sodium	44.20	B		P
7440-28-0	Thallium	0.65	U	N	F
7440-62-2	Vanadium	25.00			P
7440-66-6	Zinc	40.50			P
	Cyanide	1.20	U		AS

000016

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

FORM I - IN

AR305874 7/88

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB35

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-15S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 80.9

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12600.00			P
7440-36-0	Antimony	6.50	U	N	P
7440-38-2	Arsenic	2.50		N	F
7440-39-3	Barium	62.80			P
7440-41-7	Beryllium	0.48	U		P
7440-41-7	Cadmium	0.97	U	N	P
7440-70-2	Calcium	898.00	B		P
7440-47-3	Chromium	20.10			P
7440-48-4	Cobalt	12.60			P
7440-50-8	Copper	13.90			P
7439-89-6	Iron	33200.00			P
7439-92-1	Lead	26.90			F
7439-95-4	Magnesium	1010.00	B		P
7439-96-5	Manganese	468.00			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	6.70	B		P
7440-09-7	Potassium	541.00	B		P
7782-49-2	Selenium	0.73	U	NW	F
7440-22-4	Silver	2.20	U		P
7440-23-5	Sodium	60.10	B		P
7440-28-0	Thallium	0.73	U	N	F
7440-62-2	Vanadium	24.40			P
7440-66-6	Zinc	35.30			P
	Cyanide	1.20	U		AS

000017

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB36

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-16S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 82.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11400.00			P
7440-36-0	Antimony	6.30	B	N	P
7440-38-2	Arsenic	2.30	B	N	F
7440-39-3	Barium	57.30			P
7440-41-7	Beryllium	0.46	U		P
7440-41-7	Cadmium	0.92	U	N	P
7440-70-2	Calcium	708.00	B		P
7440-47-3	Chromium	22.60			P
7440-48-4	Cobalt	10.80	B		P
7440-50-8	Copper	14.00			P
7439-89-6	Iron	33400.00			P
7439-92-1	Lead	23.40			F
7439-95-4	Magnesium	953.00	B		P
7439-96-5	Manganese	433.00			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	6.40	B		P
7440-09-7	Potassium	465.00	B		P
7782-49-2	Selenium	0.72	U	NW	F
7440-22-4	Silver	2.10	U		P
7440-23-5	Sodium	46.90	B		P
7440-28-0	Thallium	0.72	U	N	F
7440-62-2	Vanadium	24.00			P
7440-66-6	Zinc	33.10			P
	Cyanide	1.20	U		AS

000018

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

OCKS

FORM I - IN

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB37

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-17S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 80.7

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13700.00			P
7440-36-0	Antimony	6.10	U	N	P
7440-38-2	Arsenic	3.70		N	F
7440-39-3	Barium	112.00			P
7440-41-7	Beryllium	0.67	B		P
7440-41-7	Cadmium	0.91	U	N	P
7440-70-2	Calcium	1450.00			P
7440-47-3	Chromium	19.10			P
7440-48-4	Cobalt	23.60			P
7440-50-8	Copper	17.00			P
7439-89-6	Iron	31100.00			P
7439-92-1	Lead	31.60		S	F
7439-95-4	Magnesium	1090.00	B		P
7439-96-5	Manganese	1780.00			P
7439-97-6	Mercury	0.10			CV
7440-02-0	Nickel	7.60	B		P
7440-09-7	Potassium	912.00	B		P
7782-49-2	Selenium	0.71	U	NW	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	47.10	B		P
7440-28-0	Thallium	0.71	U	N	F
7440-62-2	Vanadium	25.90			P
7440-66-6	Zinc	35.60			P
	Cyanide	1.20	U		AS

000019

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB38

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-18S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 81.3

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14100.00			P
7440-36-0	Antimony	6.40	U	N	P
7440-38-2	Arsenic	3.70		N	F
7440-39-3	Barium	121.00			P
7440-41-7	Beryllium	0.70	B		P
7440-41-7	Cadmium	0.95	U	N	P
7440-70-2	Calcium	1560.00			P
7440-47-3	Chromium	19.80			P
7440-48-4	Cobalt	25.60			P
7440-50-8	Copper	17.10			P
7439-89-6	Iron	30400.00			P
7439-92-1	Lead	28.40			F
7439-95-4	Magnesium	1110.00	B		P
7439-96-5	Manganese	2100.00			P
7439-97-6	Mercury	0.11			CV
7440-02-0	Nickel	7.80	B		P
7440-09-7	Potassium	692.00	B		P
7782-49-2	Selenium	0.66	U	NW	F
7440-22-4	Silver	4.20			P
7440-23-5	Sodium	62.50	B		P
7440-28-0	Thallium	0.66	U	N	F
7440-62-2	Vanadium	26.20			P
7440-66-6	Zinc	37.00			P
	Cyanide	1.20	U		AS

000020

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

OCKS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB39

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-19S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 84.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12100.00			P
7440-36-0	Antimony	8.70	B	N	P
7440-38-2	Arsenic	3.40		N	F
7440-39-3	Barium	92.50			P
7440-41-7	Beryllium	0.47	U		P
7440-41-7	Cadmium	0.93	U	N	P
7440-70-2	Calcium	1060.00	B		P
7440-47-3	Chromium	20.40			P
7440-48-4	Cobalt	23.80			P
7440-50-8	Copper	17.20			P
7439-89-6	Iron	33800.00			P
7439-92-1	Lead	27.90			F
7439-95-4	Magnesium	814.00	B		P
7439-96-5	Manganese	1300.00			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	6.20	B		P
7440-09-7	Potassium	587.00	B		P
7782-49-2	Selenium	0.67	U	NW	F
7440-22-4	Silver	2.10	U		P
7440-23-5	Sodium	34.90	B		P
7440-28-0	Thallium	0.67	U	N	F
7440-62-2	Vanadium	24.20			P
7440-66-6	Zinc	29.30			P
	Cyanide	1.20	U		AS

000021

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB40

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix (soil/water): SOIL Lab Sample ID: 08256-20S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 83.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13600.00			P
7440-36-0	Antimony	5.90	U	N	P
7440-38-2	Arsenic	3.20		N	F
7440-39-3	Barium	98.50			P
7440-41-7	Beryllium	0.54	B		P
7440-41-7	Cadmium	0.88	U	N	P
7440-70-2	Calcium	1120.00			P
7440-47-3	Chromium	21.00			P
7440-48-4	Cobalt	23.80			P
7440-50-8	Copper	20.00			P
7439-89-6	Iron	37400.00			P
7439-92-1	Lead	27.00			F
7439-95-4	Magnesium	967.00	B		P
7439-96-5	Manganese	1330.00			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	7.20	B		P
7440-09-7	Potassium	706.00	B		P
7782-49-2	Selenium	0.64	U	NW	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	36.80	B		P
7440-28-0	Thallium	0.64	U	N	F
7440-62-2	Vanadium	26.30			P
7440-66-6	Zinc	35.30			P
	Cyanide	1.20	U		AS

000022

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB41

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-01S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 91.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8210.00			P
7440-36-0	Antimony	5.80	U		P
7440-38-2	Arsenic	1.30	B		F
7440-39-3	Barium	18.70	B		P
7440-41-7	Beryllium	0.43	U		P
7440-41-7	Cadmium	0.85	U		P
7440-70-2	Calcium	3880.00		*	P
7440-47-3	Chromium	13.40			P
7440-48-4	Cobalt	11.20			P
7440-50-8	Copper	13.50		*	P
7439-89-6	Iron	21900.00		*	P
7439-92-1	Lead	10.50		*	F
7439-95-4	Magnesium	4320.00		*	P
7439-96-5	Manganese	231.00		*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	15.60			P
7440-09-7	Potassium	209.00	B		P
7782-49-2	Selenium	0.64	U	W	F
7440-22-4	Silver	1.90	U	N	P
7440-23-5	Sodium	37.40	B		P
7440-28-0	Thallium	0.43	U	N	F
7440-62-2	Vanadium	8.40	B		P
7440-66-6	Zinc	70.70		*	P
	Cyanide	1.10	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0003

FORM I - IN 7/88

AR305881

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB42

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-02S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 89.3

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9080.00			P
7440-36-0	Antimony	5.50	U		P
7440-38-2	Arsenic	2.10	B		F
7440-39-3	Barium	31.60	B		P
7440-41-7	Beryllium	0.63	B		P
7440-41-7	Cadmium	0.81	U		P
7440-70-2	Calcium	35300.00		*	P
7440-47-3	Chromium	13.40			P
7440-48-4	Cobalt	15.60			P
7440-50-8	Copper	22.70		*	P
7439-89-6	Iron	23900.00		*	P
7439-92-1	Lead	9.20		*	F
7439-95-4	Magnesium	15400.00		*	P
7439-96-5	Manganese	331.00		*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	18.90			P
7440-09-7	Potassium	477.00	B		P
7782-49-2	Selenium	0.65	U		F
7440-22-4	Silver	1.80	U	N	P
7440-23-5	Sodium	73.50	B		P
7440-28-0	Thallium	0.43	U	N	F
7440-62-2	Vanadium	10.80			P
7440-66-6	Zinc	97.90		*	P
	Cyanide	1.10	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0004

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB43

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-03S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 81.4

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13800.00			P
7440-36-0	Antimony	6.10	U		P
7440-38-2	Arsenic	1.40	B		F
7440-39-3	Barium	78.60			P
7440-41-7	Beryllium	0.62	B		P
7440-41-7	Cadmium	0.90	U		P
7440-70-2	Calcium	1210.00		*	P
7440-47-3	Chromium	18.40			P
7440-48-4	Cobalt	17.30			P
7440-50-8	Copper	14.50		*	P
7439-89-6	Iron	29100.00		*	P
7439-92-1	Lead	15.10		*	F
7439-95-4	Magnesium	1560.00		*	P
7439-96-5	Manganese	842.00		*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	12.00			P
7440-09-7	Potassium	710.00	B		P
7782-49-2	Selenium	0.72	U		F
7440-22-4	Silver	2.00	U	N	P
7440-23-5	Sodium	35.00	B		P
7440-28-0	Thallium	0.48	U	N	F
7440-62-2	Vanadium	22.90			P
7440-66-6	Zinc	55.90		*	P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0005

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB44

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-04S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 84.4

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13700.00			P
7440-36-0	Antimony	6.00	U		P
7440-38-2	Arsenic	4.30			F
7440-39-3	Barium	89.80			P
7440-41-7	Beryllium	0.61	B		P
7440-41-7	Cadmium	0.89	U		P
7440-70-2	Calcium	851.00	B	*	P
7440-47-3	Chromium	16.00			P
7440-48-4	Cobalt	19.60			P
7440-50-8	Copper	11.50		*	P
7439-89-6	Iron	27000.00		*	P
7439-92-1	Lead	21.10		*	F
7439-95-4	Magnesium	1660.00		*	P
7439-96-5	Manganese	971.00		*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	13.30			P
7440-09-7	Potassium	635.00	B		P
7782-49-2	Selenium	0.71	U	W	F
7440-22-4	Silver	2.00	U	N	P
7440-23-5	Sodium	32.60	B		P
7440-28-0	Thallium	2.40	U	N	F
7440-62-2	Vanadium	21.00			P
7440-66-6	Zinc	55.50		*	P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0006

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB45

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-05S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 70.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13700.00			P
7440-36-0	Antimony	6.90	U		P
7440-38-2	Arsenic	4.10			F
7440-39-3	Barium	113.00			P
7440-41-7	Beryllium	0.63	B		P
7440-41-7	Cadmium	1.00	U		P
7440-70-2	Calcium	1670.00		*	P
7440-47-3	Chromium	15.00			P
7440-48-4	Cobalt	15.70			P
7440-50-8	Copper	38.20		*	P
7439-89-6	Iron	27100.00		*	P
7439-92-1	Lead	33.20		*	F
7439-95-4	Magnesium	1270.00	B	*	P
7439-96-5	Manganese	808.00		*	P
7439-97-6	Mercury	0.13			CV
7440-02-0	Nickel	11.60			P
7440-09-7	Potassium	932.00	B		P
7782-49-2	Selenium	0.85	U	W	F
7440-22-4	Silver	2.30	U	N	P
7440-23-5	Sodium	64.60	B		P
7440-28-0	Thallium	0.56	U	N	F
7440-62-2	Vanadium	20.40			P
7440-66-6	Zinc	79.50		*	P
	Cyanide	1.40	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0007

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB46

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-06S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 77.3

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16400.00			P
7440-36-0	Antimony	7.00	U		P
7440-38-2	Arsenic	3.80			F
7440-39-3	Barium	148.00			P
7440-41-7	Beryllium	0.80	B		P
7440-41-7	Cadmium	1.00	U		P
7440-70-2	Calcium	1320.00		*	P
7440-47-3	Chromium	24.90			P
7440-48-4	Cobalt	21.80			P
7440-50-8	Copper	28.90		*	P
7439-89-6	Iron	33400.00		*	P
7439-92-1	Lead	37.40		*	F
7439-95-4	Magnesium	1360.00		*	P
7439-96-5	Manganese	1180.00		*	P
7439-97-6	Mercury	0.11			CV
7440-02-0	Nickel	15.10			P
7440-09-7	Potassium	891.00	B		P
7782-49-2	Selenium	0.78	U		F
7440-22-4	Silver	2.30	U	N	P
7440-23-5	Sodium	70.30	B		P
7440-28-0	Thallium	2.60	U	N	F
7440-62-2	Vanadium	24.50			P
7440-66-6	Zinc	132.00		*	P
	Cyanide	1.30	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0008

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB47

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-07S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 82.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14400.00			P
7440-36-0	Antimony	6.40	U		P
7440-38-2	Arsenic	3.40			F
7440-39-3	Barium	141.00			P
7440-41-7	Beryllium	0.85	B		P
7440-41-7	Cadmium	0.95	U		P
7440-70-2	Calcium	3290.00		*	P
7440-47-3	Chromium	21.80			P
7440-48-4	Cobalt	25.80			P
7440-50-8	Copper	21.50		*	P
7439-89-6	Iron	36400.00		*	P
7439-92-1	Lead	21.30		*	F
7439-95-4	Magnesium	1780.00		*	P
7439-96-5	Manganese	1370.00		*	P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	15.80			P
7440-09-7	Potassium	703.00	B		P
7782-49-2	Selenium	0.72	U	W	F
7440-22-4	Silver	2.10	U	N	P
7440-23-5	Sodium	67.20	B		P
7440-28-0	Thallium	2.40	U	N	F
7440-62-2	Vanadium	27.00			P
7440-66-6	Zinc	84.00		*	P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0009

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB48

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-08S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 85.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11400.00			P
7440-36-0	Antimony	6.20	U		P
7440-38-2	Arsenic	3.10			F
7440-39-3	Barium	59.40			P
7440-41-7	Beryllium	0.75	B		P
7440-41-7	Cadmium	0.93	U		P
7440-70-2	Calcium	2920.00		*	P
7440-47-3	Chromium	26.10			P
7440-48-4	Cobalt	16.70			P
7440-50-8	Copper	17.00		*	P
7439-89-6	Iron	45000.00		*	P
7439-92-1	Lead	23.10		*	F
7439-95-4	Magnesium	1780.00		*	P
7439-96-5	Manganese	897.00		*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	9.80			P
7440-09-7	Potassium	412.00	B		P
7782-49-2	Selenium	0.65	U	W	F
7440-22-4	Silver	2.10	U	N	P
7440-23-5	Sodium	55.10	B		P
7440-28-0	Thallium	2.20	U	N	F
7440-62-2	Vanadium	29.90			P
7440-66-6	Zinc	53.40		*	P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0010

FORM I - IN 7/88

AR305888

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB49

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-09S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 78.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13600.00			P
7440-36-0	Antimony	6.70	U		P
7440-38-2	Arsenic	2.40	B		F
7440-39-3	Barium	77.40			P
7440-41-7	Beryllium	0.64	B		P
7440-41-7	Cadmium	0.99	U		P
7440-70-2	Calcium	7330.00		*	P
7440-47-3	Chromium	19.30			P
7440-48-4	Cobalt	28.20			P
7440-50-8	Copper	18.60		*	P
7439-89-6	Iron	31700.00		*	P
7439-92-1	Lead	22.60		*	F
7439-95-4	Magnesium	3200.00		*	P
7439-96-5	Manganese	696.00		*	P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	14.30			P
7440-09-7	Potassium	693.00	B		P
7782-49-2	Selenium	0.74	U	W	F
7440-22-4	Silver	2.20	U	N	P
7440-23-5	Sodium	82.20	B		P
7440-28-0	Thallium	2.50	U	N	F
7440-62-2	Vanadium	23.70			P
7440-66-6	Zinc	65.70		*	P
	Cyanide	1.30	U		AS

Color Before: BROWN Clarity Before: Texture: ~~MEDIUM~~ MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0011

FORM I - IN 7/88

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB50

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-10S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 82.4

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12800.00			P
7440-36-0	Antimony	6.10	U		P
7440-38-2	Arsenic	3.30			F
7440-39-3	Barium	73.20			P
7440-41-7	Beryllium	0.70	B		P
7440-41-7	Cadmium	0.90	U		P
7440-70-2	Calcium	3110.00		*	P
7440-47-3	Chromium	20.50			P
7440-48-4	Cobalt	16.30			P
7440-50-8	Copper	14.90		*	P
7439-89-6	Iron	32700.00		*	P
7439-92-1	Lead	21.50		*	F
7439-95-4	Magnesium	1700.00		*	P
7439-96-5	Manganese	613.00		*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	11.60			P
7440-09-7	Potassium	511.00	B		P
7782-49-2	Selenium	0.73	U	W	F
7440-22-4	Silver	2.00	U	N	P
7440-23-5	Sodium	99.10	B		P
7440-28-0	Thallium	2.40	U	N	F
7440-62-2	Vanadium	23.80			P
7440-66-6	Zinc	53.30		*	P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

UC12

FORM I - IN 7/88

AR305890

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB51

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-11S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 83.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6440.00			P
7440-36-0	Antimony	6.20	U		P
7440-38-2	Arsenic	3.20			F
7440-39-3	Barium	34.40	B		P
7440-41-7	Beryllium	0.46	U		P
7440-41-7	Cadmium	0.92	U		P
7440-70-2	Calcium	829.00	B	*	P
7440-47-3	Chromium	10.70			P
7440-48-4	Cobalt	10.70	B		P
7440-50-8	Copper	8.30		*	P
7439-89-6	Iron	17400.00		*	P
7439-92-1	Lead	19.50		*	F
7439-95-4	Magnesium	671.00	B	*	P
7439-96-5	Manganese	470.00		*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	7.20	B		P
7440-09-7	Potassium	283.00	B		P
7782-49-2	Selenium	0.67	U	W	F
7440-22-4	Silver	2.10	U	N	P
7440-23-5	Sodium	35.80	B		P
7440-28-0	Thallium	2.20	U	N	F
7440-62-2	Vanadium	12.90			P
7440-66-6	Zinc	23.70		*	P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0013

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB52

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-12S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 83.4

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11200.00			P
7440-36-0	Antimony	6.30	U		P
7440-38-2	Arsenic	3.60			F
7440-39-3	Barium	164.00			P
7440-41-7	Beryllium	0.88	B		P
7440-41-7	Cadmium	0.94	U		P
7440-70-2	Calcium	2230.00		*	P
7440-47-3	Chromium	14.90			P
7440-48-4	Cobalt	36.60			P
7440-50-8	Copper	18.50		*	P
7439-89-6	Iron	29300.00		*	P
7439-92-1	Lead	21.50		*	F
7439-95-4	Magnesium	1580.00		*	P
7439-96-5	Manganese	4420.00		*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	16.00			P
7440-09-7	Potassium	498.00	B		P
7782-49-2	Selenium	0.71	U		F
7440-22-4	Silver	2.10	U	N	P
7440-23-5	Sodium	86.50	B		P
7440-28-0	Thallium	2.40	U	N	F
7440-62-2	Vanadium	22.50			P
7440-66-6	Zinc	47.80		*	P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

1014

FORM I - IN 7/88

AR305892

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB53

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-13S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 81.7

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14700.00			P
7440-36-0	Antimony	6.20	U		P
7440-38-2	Arsenic	3.10			F
7440-39-3	Barium	106.00			P
7440-41-7	Beryllium	0.75	B		P
7440-41-7	Cadmium	0.92	U		P
7440-70-2	Calcium	1280.00		*	P
7440-47-3	Chromium	20.70			P
7440-48-4	Cobalt	28.40			P
7440-50-8	Copper	12.20		*	P
7439-89-6	Iron	30000.00		*	P
7439-92-1	Lead	22.40		*	F
7439-95-4	Magnesium	2280.00		*	P
7439-96-5	Manganese	990.00		*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	17.40			P
7440-09-7	Potassium	524.00	B		P
7782-49-2	Selenium	0.71	U	W	F
7440-22-4	Silver	2.10	U	N	P
7440-23-5	Sodium	45.40	B		P
7440-28-0	Thallium	2.40	U	N	F
7440-62-2	Vanadium	23.00			P
7440-66-6	Zinc	63.70		*	P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0015

AR305893

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB54

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-14S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 84.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14000.00			P
7440-36-0	Antimony	6.40	U		P
7440-38-2	Arsenic	3.30			F
7440-39-3	Barium	109.00			P
7440-41-7	Beryllium	0.66	B		P
7440-41-7	Cadmium	0.95	U		P
7440-70-2	Calcium	1280.00		*	P
7440-47-3	Chromium	22.30			P
7440-48-4	Cobalt	24.60			P
7440-50-8	Copper	12.30		*	P
7439-89-6	Iron	30600.00		*	P
7439-92-1	Lead	19.80		*	F
7439-95-4	Magnesium	1910.00		*	P
7439-96-5	Manganese	835.00		*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	14.90			P
7440-09-7	Potassium	455.00	B		P
7782-49-2	Selenium	0.71	U	W	F
7440-22-4	Silver	2.10	U	N	P
7440-23-5	Sodium	45.10	B		P
7440-28-0	Thallium	2.40	U	N	F
7440-62-2	Vanadium	23.40			P
7440-66-6	Zinc	56.00		*	P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0016

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB55

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-15S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 87.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16800.00			P
7440-36-0	Antimony	6.10	U		P
7440-38-2	Arsenic	3.70			F
7440-39-3	Barium	90.80			P
7440-41-7	Beryllium	1.00	B		P
7440-41-7	Cadmium	0.90	U		P
7440-70-2	Calcium	749.00	B	*	P
7440-47-3	Chromium	32.20			P
7440-48-4	Cobalt	28.90			P
7440-50-8	Copper	21.30		*	P
7439-89-6	Iron	43600.00		*	P
7439-92-1	Lead	19.90		*	F
7439-95-4	Magnesium	2580.00		*	P
7439-96-5	Manganese	1510.00		*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	20.50			P
7440-09-7	Potassium	621.00	B		P
7782-49-2	Selenium	0.62	U		F
7440-22-4	Silver	2.00	U	N	P
7440-23-5	Sodium	37.50	B		P
7440-28-0	Thallium	0.41	U	NW	F
7440-62-2	Vanadium	34.70			P
7440-66-6	Zinc	75.70		*	P
	Cyanide	1.10	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0017

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB56

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-16S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 83.5

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	17400.00			P
7440-36-0	Antimony	6.40	U		P
7440-38-2	Arsenic	2.70			F
7440-39-3	Barium	90.50			P
7440-41-7	Beryllium	0.85	B		P
7440-41-7	Cadmium	0.95	U		P
7440-70-2	Calcium	1030.00	B	*	P
7440-47-3	Chromium	24.80			P
7440-48-4	Cobalt	19.30			P
7440-50-8	Copper	21.50		*	P
7439-89-6	Iron	37000.00		*	P
7439-92-1	Lead	34.50		*S	F
7439-95-4	Magnesium	2370.00		*	P
7439-96-5	Manganese	889.00		*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	17.50			P
7440-09-7	Potassium	606.00	B		P
7782-49-2	Selenium	0.71	U		F
7440-22-4	Silver	2.10	U	N	P
7440-23-5	Sodium	41.10	B		P
7440-28-0	Thallium	0.47	U	NW	F
7440-62-2	Vanadium	32.50			P
7440-66-6	Zinc	70.50		*	P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0018

FORM I - IN 7/88

AR305896

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB57

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-17S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 87.9

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	19200.00			P
7440-36-0	Antimony	6.10	U		P
7440-38-2	Arsenic	2.20			F
7440-39-3	Barium	97.60			P
7440-41-7	Beryllium	1.50			P
7440-41-7	Cadmium	0.90	U		P
7440-70-2	Calcium	107.00	B	*	P
7440-47-3	Chromium	19.10			P
7440-48-4	Cobalt	26.70			P
7440-50-8	Copper	27.10		*	P
7439-89-6	Iron	33100.00		*	P
7439-92-1	Lead	17.30		*	F
7439-95-4	Magnesium	1340.00		*	P
7439-96-5	Manganese	915.00		*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	13.10			P
7440-09-7	Potassium	1400.00			P
7782-49-2	Selenium	0.66	U	W	F
7440-22-4	Silver	2.00	U	N	P
7440-23-5	Sodium	42.90	B		P
7440-28-0	Thallium	0.44	U	NW	F
7440-62-2	Vanadium	26.90			P
7440-66-6	Zinc	54.50		*	P
	Cyanide	1.10	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0019

FORM I - IN 7/88

AR305897

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB58

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-18S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 86.9

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	19700.00			P
7440-36-0	Antimony	6.20	U		P
7440-38-2	Arsenic	2.60			F
7440-39-3	Barium	114.00			P
7440-41-7	Beryllium	0.78	B		P
7440-41-7	Cadmium	0.91	U		P
7440-70-2	Calcium	171.00	B	*	P
7440-47-3	Chromium	18.10			P
7440-48-4	Cobalt	24.50			P
7440-50-8	Copper	16.30		*	P
7439-89-6	Iron	32600.00		*	P
7439-92-1	Lead	23.70		*	F
7439-95-4	Magnesium	1840.00		*	P
7439-96-5	Manganese	806.00		*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	15.50			P
7440-09-7	Potassium	626.00	B		P
7782-49-2	Selenium	0.69	U		F
7440-22-4	Silver	2.10	U	N	P
7440-23-5	Sodium	38.80	B		P
7440-28-0	Thallium	0.46	U	N	F
7440-62-2	Vanadium	25.80			P
7440-66-6	Zinc	69.10		*	P
	Cyanide	1.10	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0020

FORM I - IN 7/88

AR305898

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB59

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-19S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 86.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12800.00			P
7440-36-0	Antimony	6.20	U		P
7440-38-2	Arsenic	3.70			F
7440-39-3	Barium	68.30			P
7440-41-7	Beryllium	0.98	B		P
7440-41-7	Cadmium	0.92	U		P
7440-70-2	Calcium	2450.00		*	P
7440-47-3	Chromium	20.60			P
7440-48-4	Cobalt	12.20			P
7440-50-8	Copper	21.20		*	P
7439-89-6	Iron	41200.00		*	P
7439-92-1	Lead	18.70		*	F
7439-95-4	Magnesium	965.00	B	*	P
7439-96-5	Manganese	414.00		*	P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	9.50			P
7440-09-7	Potassium	938.00	B		P
7782-49-2	Selenium	0.68	U		F
7440-22-4	Silver	2.10	U	N	P
7440-23-5	Sodium	31.10	B		P
7440-28-0	Thallium	0.45	U	N	F
7440-62-2	Vanadium	27.00			P
7440-66-6	Zinc	46.00		*	P
	Cyanide	1.10	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

0021

FORM I - IN 7/88

AR305899

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB60

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB41

Matrix (soil/water): SOIL Lab Sample ID: 08258-20S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 79.9

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14500.00			P
7440-36-0	Antimony	6.60	U		P
7440-38-2	Arsenic	3.00			F
7440-39-3	Barium	65.50			P
7440-41-7	Beryllium	0.92	B		P
7440-41-7	Cadmium	0.98	U		P
7440-70-2	Calcium	1410.00		*	P
7440-47-3	Chromium	22.80			P
7440-48-4	Cobalt	14.90			P
7440-50-8	Copper	20.60		*	P
7439-89-6	Iron	44000.00		*	P
7439-92-1	Lead	17.40		*S	F
7439-95-4	Magnesium	976.00	B	*	P
7439-96-5	Manganese	429.00		*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	9.80	B		P
7440-09-7	Potassium	692.00	B		P
7782-49-2	Selenium	0.68	U		F
7440-22-4	Silver	2.20	U	N	P
7440-23-5	Sodium	52.00	B		P
7440-28-0	Thallium	0.46	U	N	F
7440-62-2	Vanadium	29.50			P
7440-66-6	Zinc	44.60		*	P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts:

Comments:

1022

FORM I - IN 7/88

AR305900

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB61

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB61

Matrix (soil/water): SOIL Lab Sample ID: 08260-01S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 84.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16300.00			P
7440-36-0	Antimony	4.00	U	N	P
7440-38-2	Arsenic	6.10		N	F
7440-39-3	Barium	69.80			P
7440-41-7	Beryllium	0.73	B		P
7440-41-7	Cadmium	0.94	U	N	P
7440-70-2	Calcium	15000.00		*	P
7440-47-3	Chromium	24.40			P
7440-48-4	Cobalt	16.90		N	P
7440-50-8	Copper	14.60		*	P
7439-89-6	Iron	41200.00			P
7439-92-1	Lead	33.00		*	F
7439-95-4	Magnesium	5910.00		*	P
7439-96-5	Manganese	572.00			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	10.60			P
7440-09-7	Potassium	776.00	B		P
7782-49-2	Selenium	0.46	U	NW	F
7440-22-4	Silver	1.90	U		P
7440-23-5	Sodium	88.50	B		P
7440-28-0	Thallium	0.69	U	N	F
7440-62-2	Vanadium	28.80			P
7440-66-6	Zinc	51.40			P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

AR305901

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB62

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB61

Matrix (soil/water): SOIL Lab Sample ID: 08260-02S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 83.7

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14400.00			P
7440-36-0	Antimony	3.70	U	N	P
7440-38-2	Arsenic	5.10		N	F
7440-39-3	Barium	57.20			P
7440-41-7	Beryllium	0.54	B		P
7440-41-7	Cadmium	0.87	U	N	P
7440-70-2	Calcium	8570.00		*	P
7440-47-3	Chromium	21.70			P
7440-48-4	Cobalt	14.50		N	P
7440-50-8	Copper	16.20		*	P
7439-89-6	Iron	44200.00			P
7439-92-1	Lead	33.40		*	F
7439-95-4	Magnesium	2910.00		*	P
7439-96-5	Manganese	478.00			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	8.80			P
7440-09-7	Potassium	633.00	B		P
7782-49-2	Selenium	0.43	U	N	F
7440-22-4	Silver	1.70	U		P
7440-23-5	Sodium	67.00	B		P
7440-28-0	Thallium	0.64	U	N	F
7440-62-2	Vanadium	29.70			P
7440-66-6	Zinc	38.40			P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

0003

AR305902

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCC863

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCC861

Matrix (soil/water): SOIL Lab Sample ID: 08260-03S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 87.2

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21000.00			P
7440-36-0	Antimony	3.80	U	N	P
7440-38-2	Arsenic	4.70		N	F
7440-39-3	Barium	164.00			P
7440-41-7	Beryllium	1.40			P
7440-41-7	Cadmium	0.90	U	N	P
7440-70-2	Calcium	1700.00		*	P
7440-47-3	Chromium	21.30			P
7440-48-4	Cobalt	25.10		N	P
7440-50-8	Copper	21.30		*	P
7439-89-6	Iron	39100.00			P
7439-92-1	Lead	63.10		*	F
7439-95-4	Magnesium	3170.00		*	P
7439-96-5	Manganese	1420.00			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	22.00			P
7440-09-7	Potassium	1120.00	B		P
7782-49-2	Selenium	0.45	U	NW	F
7440-22-4	Silver	1.80	U		P
7440-23-5	Sodium	60.30	B		P
7440-28-0	Thallium	0.67	U	N	F
7440-62-2	Vanadium	30.30			P
7440-66-6	Zinc	131.00			P
	Cyanide	1.30			AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

AR305903

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB64

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB61

Matrix (soil/water): SOIL Lab Sample ID: 08260-04S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 75.3

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27000.00			P
7440-36-0	Antimony	4.30	U	N	P
7440-38-2	Arsenic	5.80		N	F
7440-39-3	Barium	211.00			P
7440-41-7	Beryllium	1.60			P
7440-41-7	Cadmium	1.00	U	N	P
7440-70-2	Calcium	1560.00		*	P
7440-47-3	Chromium	27.00			P
7440-48-4	Cobalt	32.90		N	P
7440-50-8	Copper	31.60		*	P
7439-89-6	Iron	45700.00			P
7439-92-1	Lead	71.80		*	F
7439-95-4	Magnesium	3820.00		*	P
7439-96-5	Manganese	1670.00			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	29.30			P
7440-09-7	Potassium	1100.00	B		P
7782-49-2	Selenium	0.49	U	NW	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	81.80	B		P
7440-28-0	Thallium	0.74	U	N	F
7440-62-2	Vanadium	35.30			P
7440-66-6	Zinc	140.00			P
	Cyanide	1.30	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

0005

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB65

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB61

Matrix (soil/water): SOIL Lab Sample ID: 08260-05S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 86.5

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	18400.00			P
7440-36-0	Antimony	3.70	U	N	P
7440-38-2	Arsenic	8.60		N	F
7440-39-3	Barium	96.70			P
7440-41-7	Beryllium	0.68	B		P
7440-41-7	Cadmium	0.87	U	N	P
7440-70-2	Calcium	2180.00		*	P
7440-47-3	Chromium	19.50			P
7440-48-4	Cobalt	21.20		N	P
7440-50-8	Copper	22.30		*	P
7439-89-6	Iron	36600.00			P
7439-92-1	Lead	102.00		*	F
7439-95-4	Magnesium	3520.00		*	P
7439-96-5	Manganese	1100.00			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	24.70			P
7440-09-7	Potassium	598.00	B		P
7782-49-2	Selenium	0.43	U	N	F
7440-22-4	Silver	1.70	U		P
7440-23-5	Sodium	93.40	B		P
7440-28-0	Thallium	0.64	U	N	F
7440-62-2	Vanadium	28.10			P
7440-66-6	Zinc	149.00			P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

0006

ROCKS

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB66

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB61

Matrix (soil/water): SOIL Lab Sample ID: 08260-06S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 91.7

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	20000.00			P
7440-36-0	Antimony	3.60	U	N	P
7440-38-2	Arsenic	5.60		N	F
7440-39-3	Barium	74.00			P
7440-41-7	Beryllium	1.30			P
7440-41-7	Cadmium	0.85	U	N	P
7440-70-2	Calcium	5000.00		*	P
7440-47-3	Chromium	20.00			P
7440-48-4	Cobalt	17.80		N	P
7440-50-8	Copper	25.10		*	P
7439-89-6	Iron	29000.00			P
7439-92-1	Lead	69.00		*	F
7439-95-4	Magnesium	7610.00		*	P
7439-96-5	Manganese	1100.00			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	26.90			P
7440-09-7	Potassium	1830.00			P
7782-49-2	Selenium	0.42	U	N	F
7440-22-4	Silver	1.70	U		P
7440-23-5	Sodium	587.00	B		P
7440-28-0	Thallium	0.64	U	N	F
7440-62-2	Vanadium	28.70			P
7440-66-6	Zinc	134.00			P
	Cyanide	1.10	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB67

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB61

Matrix (soil/water): SOIL Lab Sample ID: 08260-07S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 69.3

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22900.00			P
7440-36-0	Antimony	4.90	U	N	P
7440-38-2	Arsenic	5.70		N	F
7440-39-3	Barium	109.00			P
7440-41-7	Beryllium	0.54	B		P
7440-41-7	Cadmium	1.20	U	N	P
7440-70-2	Calcium	2270.00		*	P
7440-47-3	Chromium	25.10			P
7440-48-4	Cobalt	20.70		N	P
7440-50-8	Copper	24.90		*	P
7439-89-6	Iron	41100.00			P
7439-92-1	Lead	35.20		*	F
7439-95-4	Magnesium	3050.00		*	P
7439-96-5	Manganese	751.00			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	20.80			P
7440-09-7	Potassium	1140.00	B		P
7782-49-2	Selenium	0.51	U	NW	F
7440-22-4	Silver	2.30	U		P
7440-23-5	Sodium	155.00	B		P
7440-28-0	Thallium	0.77	U	N	F
7440-62-2	Vanadium	29.70			P
7440-66-6	Zinc	113.00			P
	Cyanide	1.40	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB68

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB61

Matrix (soil/water): SOIL Lab Sample ID: 08260-08S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 81.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23800.00			P
7440-36-0	Antimony	4.00	U	N	P
7440-38-2	Arsenic	4.50		N	F
7440-39-3	Barium	91.20			P
7440-41-7	Beryllium	0.73	B		P
7440-41-7	Cadmium	0.94	U	N	P
7440-70-2	Calcium	1300.00		*	P
7440-47-3	Chromium	26.60			P
7440-48-4	Cobalt	18.80		N	P
7440-50-8	Copper	20.50		*	P
7439-89-6	Iron	43800.00			P
7439-92-1	Lead	24.30		*	F
7439-95-4	Magnesium	4020.00		*	P
7439-96-5	Manganese	603.00			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	25.40			P
7440-09-7	Potassium	819.00	B		P
7782-49-2	Selenium	0.45	U	NW	F
7440-22-4	Silver	1.90	U		P
7440-23-5	Sodium	87.10	B		P
7440-28-0	Thallium	0.67	U	N	F
7440-62-2	Vanadium	30.30			P
7440-66-6	Zinc	109.00			P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB69

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB61

Matrix (soil/water): SOIL Lab Sample ID: 08260-09S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 76.4

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	20000.00			P
7440-36-0	Antimony	4.20	U	N	P
7440-38-2	Arsenic	4.10		N	F
7440-39-3	Barium	135.00			P
7440-41-7	Beryllium	1.50			P
7440-41-7	Cadmium	0.98	U	N	P
7440-70-2	Calcium	2050.00		*	P
7440-47-3	Chromium	21.30			P
7440-48-4	Cobalt	47.40		N	P
7440-50-8	Copper	11.20		*	P
7439-89-6	Iron	34300.00			P
7439-92-1	Lead	70.00		*	F
7439-95-4	Magnesium	1440.00		*	P
7439-96-5	Manganese	3620.00			P
7439-97-6	Mercury	0.48			CV
7440-02-0	Nickel	16.70			P
7440-09-7	Potassium	860.00	B		P
7782-49-2	Selenium	0.81	B	NW	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	142.00	B		P
7440-28-0	Thallium	0.75	U	N	F
7440-62-2	Vanadium	36.20			P
7440-66-6	Zinc	56.10			P
	Cyanide	1.30	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB70

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB61

Matrix (soil/water): SOIL Lab Sample ID: 08260-10S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 84.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	17600.00			P
7440-36-0	Antimony	3.90	U	N	P
7440-38-2	Arsenic	2.70		N	F
7440-39-3	Barium	102.00			P
7440-41-7	Beryllium	0.85	B		P
7440-41-7	Cadmium	0.91	U	N	P
7440-70-2	Calcium	997.00	B	*	P
7440-47-3	Chromium	22.10			P
7440-48-4	Cobalt	27.40		N	P
7440-50-8	Copper	18.80		*	P
7439-89-6	Iron	41300.00			P
7439-92-1	Lead	22.70		*	F
7439-95-4	Magnesium	1360.00		*	P
7439-96-5	Manganese	1430.00			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	13.10			P
7440-09-7	Potassium	835.00	B		P
7782-49-2	Selenium	0.47	B	NW	F
7440-22-4	Silver	1.80	U		P
7440-23-5	Sodium	63.40	B		P
7440-28-0	Thallium	0.67	U	N	F
7440-62-2	Vanadium	28.70			P
7440-66-6	Zinc	46.60			P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB71

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB61

Matrix (soil/water): SOIL Lab Sample ID: 08260-11S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 84.2

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16300.00			P
7440-36-0	Antimony	4.00	U	N	P
7440-38-2	Arsenic	3.30		N	F
7440-39-3	Barium	95.10			P
7440-41-7	Beryllium	0.88	B		P
7440-41-7	Cadmium	0.94	U	N	P
7440-70-2	Calcium	765.00	B	*	P
7440-47-3	Chromium	18.70			P
7440-48-4	Cobalt	20.50		N	P
7440-50-8	Copper	9.50		*	P
7439-89-6	Iron	31300.00			P
7439-92-1	Lead	21.70		*	F
7439-95-4	Magnesium	1630.00		*	P
7439-96-5	Manganese	1000.00			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	14.10			P
7440-09-7	Potassium	750.00	B		P
7782-49-2	Selenium	0.40	U	NW	F
7440-22-4	Silver	1.90	U		P
7440-23-5	Sodium	46.70	B		P
7440-28-0	Thallium	0.60	U	N	F
7440-62-2	Vanadium	25.00			P
7440-66-6	Zinc	56.50			P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB72

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB61

Matrix (soil/water): SOIL Lab Sample ID: 08260-12S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 83.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12400.00			P
7440-36-0	Antimony	3.50	U	N	P
7440-38-2	Arsenic	2.90		N	F
7440-39-3	Barium	81.00			P
7440-41-7	Beryllium	0.65	B		P
7440-41-7	Cadmium	0.83	U	N	P
7440-70-2	Calcium	1720.00		*	P
7440-47-3	Chromium	22.50			P
7440-48-4	Cobalt	25.70		N	P
7440-50-8	Copper	11.00		*	P
7439-89-6	Iron	37800.00			P
7439-92-1	Lead	18.10		*	F
7439-95-4	Magnesium	1420.00		*	P
7439-96-5	Manganese	903.00			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	10.80			P
7440-09-7	Potassium	584.00	B		P
7782-49-2	Selenium	0.43	U	N	F
7440-22-4	Silver	1.70	U		P
7440-23-5	Sodium	70.20	B		P
7440-28-0	Thallium	0.65	U	N	F
7440-62-2	Vanadium	26.60			P
7440-66-6	Zinc	48.50			P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB73

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB61

Matrix (soil/water): SOIL Lab Sample ID: 08260-13S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 87.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	15200.00			P
7440-36-0	Antimony	3.50	U	N	P
7440-38-2	Arsenic	3.60		N	F
7440-39-3	Barium	80.10			P
7440-41-7	Beryllium	1.50			P
7440-41-7	Cadmium	0.83	U	N	P
7440-70-2	Calcium	663.00	B	*	P
7440-47-3	Chromium	26.80			P
7440-48-4	Cobalt	24.30		N	P
7440-50-8	Copper	12.70		*	P
7439-89-6	Iron	38700.00			P
7439-92-1	Lead	5.10		*	F
7439-95-4	Magnesium	2300.00		*	P
7439-96-5	Manganese	1300.00			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	17.50			P
7440-09-7	Potassium	582.00	B		P
7782-49-2	Selenium	0.44	U	N	F
7440-22-4	Silver	1.70	U		P
7440-23-5	Sodium	48.60	B		P
7440-28-0	Thallium	0.66	U	N	F
7440-62-2	Vanadium	29.70			P
7440-66-6	Zinc	65.30			P
	Cyanide	1.10	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROCKS

AR305913

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCB74

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB61

Matrix (soil/water): WATER Lab Sample ID: 08260-14S

Level (low/med): LOW Date Received: 08/31/89

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	29.00	U		P
7440-36-0	Antimony	17.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	3.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	4.00	U		P
7440-70-2	Calcium	59.60	B		P
7440-47-3	Chromium	10.00	U		P
7440-48-4	Cobalt	5.00	U		P
7440-50-8	Copper	5.00	U		P
7439-89-6	Iron	24.00	U		P
7439-92-1	Lead	1.40	B		F
7439-95-4	Magnesium	40.00	U		P
7439-96-5	Manganese	5.30	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	7.30	B		P
7440-09-7	Potassium	179.00	U		P
7782-49-2	Selenium	2.00	U		F
7440-22-4	Silver	8.00	U		P
7440-23-5	Sodium	84.30	B		P
7440-28-0	Thallium	3.00	U		F
7440-62-2	Vanadium	6.00	U		P
7440-66-6	Zinc	6.00	U		P
	Cyanide	10.00	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

0615

AR305914

WESTON SM

APPENDIX B

DPO REPORT

APPENDIX C

SUPPORT DOCUMENTATION

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MCCB21A

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 12648 SAS No.: SDG No.: MCCB21

Matrix: SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		144.35		27.00	U	120.0	120.3		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium		4.00	U	4.00	U	10.0	0.0		P
Calcium									NR
Chromium									
Cobalt									
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

000039