



United States
Department of
Agriculture

Forest
Service

Plumas
National
Forest

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Review

OCT NOV - 1 PM 2:58
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SACRAMENTO
CARMOCB

File Code: 2540
Date: October 21, 2004

Mr. Steve Rosenbaum
California Regional Water Quality Control Board -
Central Valley Region
3443 Routier Road, Suite A
Sacramento, CA 95827-3003

Dear Mr. Rosenbaum:

Enclosed please find the results of surface water monitoring performed by the U.S. Department of Agriculture, Forest Service, Plumas National Forest, at the Walker Mine Tailings in Plumas County. This report is for samples collected July 12, 2004. All samples were transported to Henrici Water Laboratory, near Quincy, for analysis. The Henrici laboratory sent a portion of these samples to Twining Laboratories, Inc., in Bakersfield, California, for metals analysis.

The 2001 Amended Record of Decision for the Walker Mine Tailings site provides for the diversion of Dolly Creek around the tailings material. A contract was awarded to Ecology and Environment, Inc., of San Francisco for the design of this diversion channel and the design work is now complete. Pending available funding, the Plumas National Forest hopes to implement construction of the diversion channel in summer 2005 or 2006. As in the past four years, one additional water sampling event was conducted this past summer and the analysis results will be reported to your office later this fall. Additionally, the third installment of in-stream bio-assessment sampling has been completed and the macro invertebrate and periphyton analysis results will be available next spring. Negotiations with the Atlantic Richfield Company (ARCO), a Potentially Responsible Party, over remediation costs are still pending.

Please call Joe Hoffman of this office at (530) 283-7868 if you have questions.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in the attached documents and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Sincerely,

for JAMES M. PEÑA
Forest Supervisor



607530141



MONITORING REPORT

Discharger: USDA Forest Service, Plumas National Forest

Facility: Walker Mine Tailings, Plumas County

Reporting Frequency: Quarterly

Monitoring Period: July 2004

Summary: Surface water samples were collected July 12, 2004. The sample collected at the compliance station, R-5 Little Grizzly Creek near Brown's Cabin, remains in noncompliance with the limitation for copper (see Table 1). The remaining R-5 constituents are in compliance with the monitoring program's prescribed limitations. The release of copper from the tailings area to Dolly Creek, as measured at R-2, continues to far exceed the limitation. The concentration of iron does not exceed the compliance limitation at any of the sampling sites. Concentrations of zinc were detected in the samples taken at the five sites, but none of these concentrations exceeded the limitation.

No groundwater samples were collected in July, as prescribed by the monitoring program.

TABLE OF CONTENTS

Table 1: SURFACE WATER SUMMARY

Map of the tailings area with the surface water monitoring sites

Discharge Measurement Notes

Chain-of-Custody record for surface water samples

Henrici Water Laboratory Analysis Reports for surface water tests

JULY 2004

**SURFACE WATER TEST RESULTS
AND
SUPPORTING DOCUMENTATION**

Table 1. SURFACE WATER SUMMARY REPORT

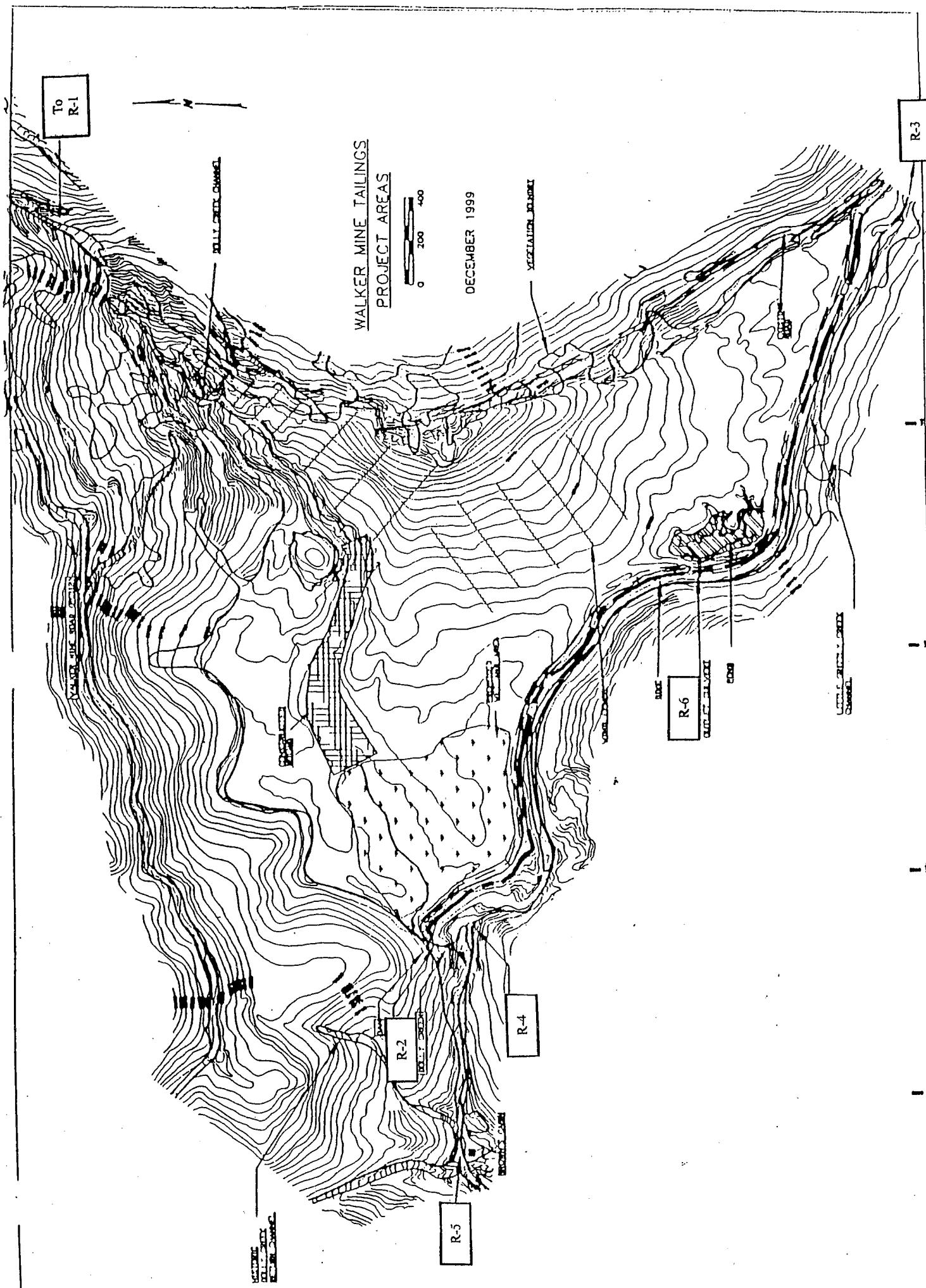
MONITORING AND REPORTING PROGRAM No. 5-00-028
U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE, PLUMAS NATIONAL FOREST
WALKER MINE TAILINGS, PLUMAS COUNTY
JULY 2004

CONSTITUENT	UNITS	DETECTION LIMITS			MONITORING STATIONS			R-6	LIMITATION @ R-5 ³
		R-1	R-2	R-3 ¹	R-4	R-5 ²			
Field Parameters									
Flow	cfs	N/A	0.14	0.34	0.67	0.32	1.99	0	N/A
pH		N/A	7.84	8.15	7.84	7.78	7.93	N/A	N/A
Specific Conductance	umhos/cm	N/A	103	131	85	127	111	N/A	N/A
Air Temperature	°C	N/A	19.0	19.0	17.5	19.5	13.5	N/A	N/A
Water Temperature	°C	N/A	12.1	18.2	13.3	15.1	12.5	N/A	N/A
Laboratory									
Total Hardness as CaCO ₃	mg/l	7	68	71	48	68	68	N/A	N/A
Total Alkalinity	mg/l	1	62	72	64	77	70	N/A	N/A
Sulfate	mg/l	0.5	1.9	6.5	2.2	12.9	10.6	N/A	N/A
Turbidity	NTU	0.05	0.71	1.9	0.56	0.83	1.4	N/A	1.6
Dissolved Iron	ug/l	50	392	518	226	405	568	N/A	1000
Dissolved Copper	ug/l	1.0	21	220	ND	ND	67	N/A	6.4
Dissolved Zinc	ug/l	1.0	2.1	18	1.3	2.3	6.7	N/A	85

¹ R-3 is the background station located above the tailings area on Little Grizzly Creek.

² R-5 is the compliance station located near Brown's Cabin, downstream from the confluence of Dolly Creek with Little Grizzly Creek.

³ The compliance values for copper and zinc are calculated with the R-5 hardness value of 68 mg/l as CaCO₃.



WALKER MINE TAILINGS MONITORING PROGRAM

9-2755
(May 1971)

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

DISCHARGE MEASUREMENT NOTES

Sec. No. R-2

Date 7/12 Dolly Creek below Tailings Dam

Party Elynn Francis

Area Vel G.H. Ditch.

Method C/10 No. sec. C. H. change in hrs. Susp.

Method coef. Hor. angle coef. Meter No.

Type of meter DMM

GAGE READINGS

Time	Recorder	Inside	Outside	Date rated	for rod, other.
				Meter	ft. above bottom of weight.
				Spin before meas.	after
				Meas. plots	% diff. from rating
				Wading	table, ice, boat, upstr., downstr., side bridge
				gage, and	feet, mile, above, below
				Check-bar, found	at
				changed to	
				Correct	
				Levels obtained	
				Weighed M. G. H.	
				C. H. correction	
				Correct M. G. H.	

Measurement rated excellent (2%). Good (5%) fair (8%). Poor (over 8%). Based on following conditions: Cross section Weather Warm/Clear

Flow

Other

Gage

Observer

Control

Air 79.0°C @ 1128 ft.

Water 18.2°C @ 1128 ft.

Intake flushed

CONDUCTANCE 131 umhos/cm

C. H. at zero flow

ft.

8.15

Samples e 1130

WALKER MINE TAILINGS MONITORING PROGRAM

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

DISCHARGE MEASUREMENT NOTES

Check by _____

Site No. R-5

Little Grizzly Creek @ Brown's Cabin

Date 7/12 1984 Party Flynn / Francis

Width Area _____

Method 6/10 No. sec. C. H. change _____ in hrs. Susp. _____

Method coef. Har. angle coef. Susp. coef. Meter No. _____

Type of meter M-215

Time	Recorder	Inside	Outside
Date rated		for rod, other.	
Meter		ft. above bottom of weight.	
Spin before meals		after _____	
Meas. plus % diff. from rating		8.0	0.30
Wading, cable, ice, boat, upstream, downstream, side bridge		feet, mile, above, below gage, and	9.5
Check-bar, found		changed to _____ at _____	0.10
Correct		_____	1.0
Levels obtained		_____	1.0

WEIGHTS M. C. H. _____

C. H. correction _____

Correct M. C. H. _____

CAGE READINGS			
Time	Recorder	Inside	Outside
1	100	100	100
2	100	100	100
3	100	100	100
4	100	100	100
5	100	100	100
6	100	100	100
7	100	100	100
8	100	100	100
9	100	100	100
10	100	100	100
11	100	100	100
12	100	100	100
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156	100	100	100
157	100	100	100
158	100	100	100
159	100	100	100
160	100	100	100
161	100</td		

WALKER MINE TAILINGS MONITORING PROGRAM

(May 1971)

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

DISCHARGE MEASUREMENT NOTES

Site No. R-6 Sediment Basin Outlet Date 7/12 Party Flynn / Francis Checked by _____

Width Area Vel C. H. Disch. _____

Method 6/10 No. sec. C. H. change in hr. Susp. _____

Method coef. Hor. angle coef. Susp. coef. Meter No. _____

GAGE READINGS Type of meter MM

Time Recorder Inside Outside

Date rated _____ ft. above bottom of weight.

Meter ft. above bottom of weight after _____

Spin before meas. Meas. plus % diff. from rating _____

Wading table ice boat, upstr., downstr., side bridge feet, mile, above, below

gage, and gage, and

Check-bar, found changed to at _____

Correct Levels obtained _____

Weighed M. G. H. _____

C. H. correction. _____

Correct M. G. H. _____

Weather - Weather / Clear

Flow - Flow Other _____

Gage _____ Record removed _____ Intake flushed _____

Observer _____

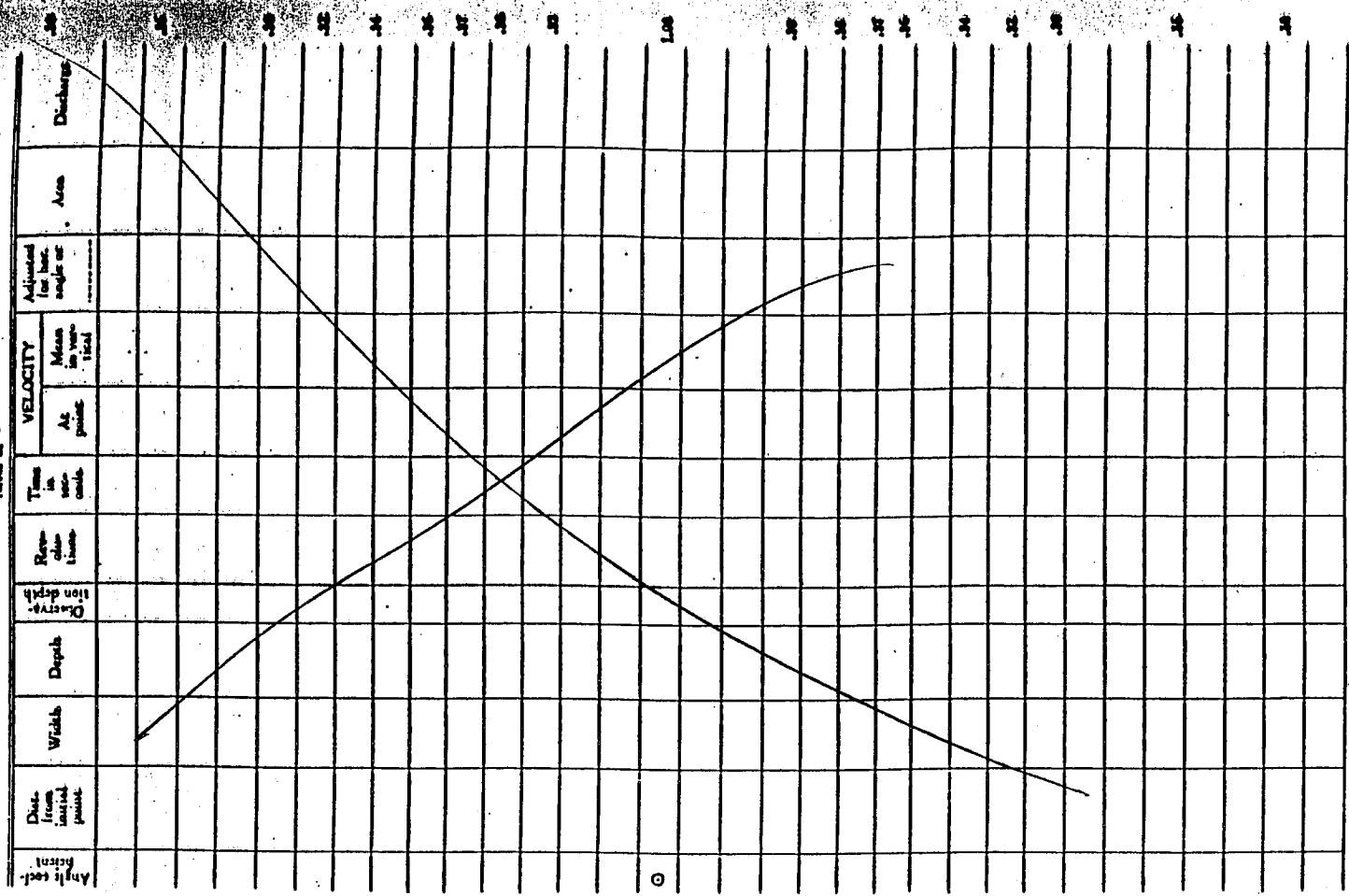
Control _____

pH _____

CONDUCTANCE umhos/cm

C. H. of zero flow ft. _____

No flow - No sample



HENRICI WATER LABORATORY
1832 BUTTERFLY VALLEY ROAD, QUINCY, CALIFORNIA 95971
PHONE (530) 281-6588

Plumas National Forest
Supervisor's Office
P.O. Box 11500
Quincy, CA 95971

Account: 11616
Date: 09/30/04
Page: 1

ANALYSIS REPORT

Laboratory Number: C36598 Date Received: 07/12/04
Location: Walker Mine R-1
Date of Collection : 07/12/04 Time: 1250 Collector: Flynn

Hardness, dissolved copper, dissolved iron, and dissolved zinc analysis by Twining Laboratory, Bakersfield, CA.

Analysis	Date of Analysis	Method	Detection Limits	Results	Units
Total Hardness	09/23/04	EPA 200.7	7	68	mg/L
Total Alkalinity	07/12/04	SM 2320 B	1	62	mg/L
Sulfate	07/26/04	SM 375.4	0.5	1.9	mg/L
Turbidity	07/12/04	SM 2130B	0.05	0.71	NTU
Dissolved Iron	09/23/04	EPA 200.7	0.050	0.392	mg/L
Dissolved Copper	09/23/04	EPA 200.7	0.0050	0.021	mg/L
Dissolved Zinc	09/23/04	EPA 200.7	0.0050	<0.0050	mg/L

These results were obtained by following standard laboratory procedures: the liability of the laboratory shall not exceed the amount paid for this report.

Dawn M. Henton

HENRICI WATER LABORATORY
1832 BUTTERFLY VALLEY ROAD, QUINCY, CALIFORNIA 95971
PHONE (530) 281-6588

Plumas National Forest
Supervisor's Office
P.O. Box 11500
Quincy, CA 95971

Account: 11616
Date: 09/30/04
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ANALYSIS REPORT

Laboratory Number: C36599 Date Received: 07/12/04
Location: Walker Mine R-2
Date of Collection : 07/12/04 Time: 1130 Collector: Flynn

Hardness, dissolved copper, dissolved iron, and dissolved zinc analysis by Twining Laboratory, Bakersfield, CA.

Analysis	Date of Analysis	Method	Detection Limits	Results	Units
Total Hardness	09/23/04	EPA 200.7	7	71	mg/L
Total Alkalinity	07/12/04	SM 2320 B	1	72	mg/L
Sulfate	07/26/04	SM 375.4	0.5	6.5	mg/L
Turbidity	07/12/04	SM 2130B	0.05	1.9	NTU
Dissolved Iron	09/23/04	EPA 200.7	0.050	0.518	mg/L
Dissolved Copper	09/23/04	EPA 200.7	0.0050	0.22	mg/L
Dissolved Zinc	09/23/04	EPA 200.7	0.0050	0.018	mg/L

These results were obtained by following standard laboratory procedures: the liability of the laboratory shall not exceed the amount paid for this report.

Dawn M. Henton

HENRICI WATER LABORATORY
1832 BUTTERFLY VALLEY ROAD, QUINCY, CALIFORNIA 95971
PHONE (530) 281-6588

Plumas National Forest
Supervisor's Office
P.O. Box 11500
Quincy, CA 95971

Account: 11616
Date: 09/30/04
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ANALYSIS REPORT

Laboratory Number: C36600 Date Received: 07/12/04

Location: Walker Mine R-3

Date of Collection : 07/12/04 Time: 1050 Collector: Flynn

Hardness, dissolved copper, dissolved iron, and dissolved zinc analysis by Twining Laboratory, Bakersfield, CA.

Analysis	Date of Analysis	Method	Detection Limits	Results	Units
Total Hardness	09/23/04	EPA 200.7	7	48	mg/L
Total Alkalinity	07/12/04	SM 2320 B	1	64	mg/L
Sulfate	07/26/04	SM 375.4	0.5	2.2	mg/L
Turbidity	07/12/04	SM 2130B	0.05	0.56	NTU
Dissolved Iron	09/23/04	EPA 200.7	0.050	0.226	mg/L
Dissolved Copper	09/23/04	EPA 200.7	0.0050	<0.0050	mg/L
Dissolved Zinc	09/23/04	EPA 200.7	0.0050	<0.0050	mg/L

These results were obtained by following standard laboratory procedures: the liability of the laboratory shall not exceed the amount paid for this report.

Dawn M. Henton
Technician, Director

HENRICI WATER LABORATORY
1832 BUTTERFLY VALLEY ROAD, QUINCY, CALIFORNIA 95971
PHONE (530) 281-6588

Plumas National Forest
Supervisor's Office
P.O. Box 11500
Quincy, CA 95971

Account: 11616
Date: 09/30/04
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ANALYSIS REPORT

Laboratory Number: C36601 Date Received: 07/12/04
Location: Walker Mine R-4
Date of Collection : 07/12/04 Time: 1150 Collector: Flynn

Hardness, dissolved copper, dissolved iron, and dissolved zinc analysis by Twining Laboratory, Bakersfield, CA.

Analysis	Date of Analysis	Method	Detection Limits	Results	Units
Total Hardness	09/23/04	EPA 200.7	7	68	mg/L
Total Alkalinity	07/12/04	SM 2320 B	1	77	mg/L
Sulfate	07/26/04	SM 375.4	0.5	12.9	mg/L
Turbidity	07/12/04	SM 2130B	0.05	0.83	NTU
Dissolved Iron	09/23/04	EPA 200.7	0.050	0.405	mg/L
Dissolved Copper	09/23/04	EPA 200.7	0.0050	<0.0050	mg/L
Dissolved Zinc	09/23/04	EPA 200.7	0.0050	<0.0050	mg/L

These results were obtained by following standard laboratory procedures: the liability of the laboratory shall not exceed the amount paid for this report.

Dawn M. Henton

HENRICI WATER LABORATORY
1832 BUTTERFLY VALLEY ROAD, QUINCY, CALIFORNIA 95971
PHONE (530) 281-6588

Plumas National Forest
Supervisor's Office
P.O. Box 11500
Quincy, CA 95971

Account: 11616
Date: 09/30/04
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ANALYSIS REPORT

Laboratory Number: C36602 Date Received: 07/12/04

Location: Walker Mine R-5

Date of Collection : 07/12/04 Time: 0935 Collector: Flynn

Hardness, dissolved copper, dissolved iron, and dissolved zinc analysis by Twining Laboratory, Bakersfield, CA.

Analysis	Date of Analysis	Method	Detection Limits	Results	Units
Total Hardness	09/23/04	EPA 200.7	7	68	mg/L
Total Alkalinity	07/12/04	SM 2320 B	1	70	mg/L
Sulfate	07/26/04	SM 375.4	0.5	10.6	mg/L
Turbidity	07/12/04	SM 2130B	0.05	1.4	NTU
Dissolved Iron	09/23/04	EPA 200.7	0.050	0.568	mg/L
Dissolved Copper	09/23/04	EPA 200.7	0.0050	0.067	mg/L
Dissolved Copper	09/23/04	EPA 200.7	0.0050	0.0067	mg/L

These results were obtained by following standard laboratory procedures: the liability of the laboratory shall not exceed the amount paid for this report.

Dawn M. Henton
Laboratory Director

Henrici Water Laboratory Chain of Custody

Purveyor: USFS Plumes Not Forest
159 Lawrence St
Quincy, CA 95971
Ath Joe Hoffman (538) 283 2050

Samper's Signature

Purveyor:	USFS Pinus Nut Forest				Type of Analyses				
	159 Lawrence St Quincy, MA 02171								
Sampler's Signature:	<u>Att Joe Hoffman (538) 283 2050</u>								
ID No.	Date	Time	Location	No. of Samples	Comments				
7/12/04	0935	R-5		1	X X X X	X X X X	X X X X	X X X X	Detection limits
	1050	R-3		1	X X X X	X X X X	X X X X	X X X X	$C_u = 1 \text{ ug/l}$
	1130	R-2		1	X X X X	X X X X	X X X X	X X X X	$Z_u = 2 \text{ ug/l}$
	1150	R-4		1	X X X X	X X X X	X X X X	X X X X	$F_u = 50 \text{ ug/l}$
	1200	R-1		1	X X X X	X X X X	X X X X	X X X X	
								Date	Time
								Received By	
								<u>Att Joe Hoffman</u>	