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DEC 27 1988
DENVER
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December 22, 1988

Mr. Dick Glandsman
CH2M Hill
P.O. Box 22508
Denver, Colorado 80111

Re: **Cherokee County/Galena: Final Leach Results - Milled Tailings**

Dear Mr. Glandsman:

Attached please find a copy of the final sets of leaching results for the milled tailings samples from the Galena study that was performed by the PRP group. These are the data that complete the columns on p. 27 of the Core laboratory report dated December 5, 1988 that appears in Appendix C of the December 5 report by Adrian Brown Consultants entitled "Results and Analysis of Leaching Tests, Galena Subsite, Cherokee County Site, Kansas." You will note that this laboratory report is dated today; in fact this is a copy of a telefax report, which has just been received at our office. The laboratory assures me that the final report, including this last data increment, will be delivered on Wednesday, December 28. We will forward two copies of the final laboratory report to Mr. Geitner's attention and another to Ms. Fuerst as soon as the report is received by us and distributed to the PRPs.

If you have any questions about this material, please contact me.

Respectfully submitted,
ADRIAN BROWN CONSULTANTS

Mark J. Logsdon

Mark J. Logsdon, Hydrogeochemist

Att: Analytical Report, Core Laboratories, dated December 22, 1988

cc: K. Paulsen (AMAX)
A. Smith (ASCI)

cc: Glandsman
Bluck
May

Orig: Incoming File

S00082300
SUPERFUND RECORDS

Western Atlas International
A Litton Company

CORE LABORATORIES

ANALYTICAL REPORT

December 22, 1988

Sample I.D.	Day 28	Flooding Effluent Day 28	Day 37 Final Run	Final Effluent Day 37
Lab Sample I.D. (880942)	#30	#31	#32	#33

MILLED TAILINGS - METHOD 2, LEACHATE SAMPLES

PARAMETER	UNITS				
pH	ph units	10.12	8.85	10.16	7.51
Eh	mv	275	340	207	340
Conductivity	umhos/cm	227	194	223	40.5
Sulfate	mg/l	20	12	17	<1
TDS	mg/l				
Alkalinity	mg/l	64	———	———	———
Chloride	mg/l	6.0	———	———	———
TOTAL METALS		Total/Dissolved			
Cadmium	mg/l	<0.01 / <0.01	<0.01	<0.01	<0.01
Iron	mg/l	1.74 / 0.51	0.39	3.90	0.41
Lead	mg/l	0.52 / <0.05	<0.05	1.59	0.21
Manganese	mg/l	0.02 / <0.01	0.01	0.05	0.02
Zinc	mg/l	0.11 / <0.01	0.19	0.17	0.12
Calcium	mg/l	—— / 25.1	———	———	———
Magnesium	mg/l	—— / 0.67	———	———	———
Sodium	mg/l	—— / 11.9	———	———	———
Potassium	mg/l	—— / 1.06	———	———	———

The analysis, opinions or interpretations contained in this report are based upon observations and material supplied by the client for whose exclusive and confidential use this report has been made. The interpretations or opinions expressed represent the best judgment of Core Laboratories. Core Laboratories assumes no responsibility and makes no warranty or representations, express or implied, as to the productivity, proper operations or profitableness however of any oil, gas, coal or other mineral, property, well or sand in connection with which such report is used or relied upon for any reason whatsoever.

MILLED TAILINGS - METHOD 2 - DAY 28 LEACHING, PHASE 1 (PURGING LEACHATE)

ELAPSED TIME minutes	LEACHATE mls CUMULATIVE	PRESSURE PSI	FLOW RATE mls/minute CUMULATIVE	INTERVAL FLOW RATE mls/min
2	5.0	8	2.50	
4	8.8	8	2.20	1.90
6	12.0	8	2.00	1.60
8	16.0	8	2.00	2.00
10	20.6	8	2.06	2.30
12	25.4	8	2.12	2.40
13	27.5	8	2.12	2.10

MILLED TAILINGS - METHOD 2 - DAY 28 LEACHING, PHASE 2 (SAMPLE LEACHATE)

ELAPSED TIME minutes	LEACHATE mls CUMULATIVE	PRESSURE PSI	FLOW RATE mls/minute CUMULATIVE	INTERVAL FLOW RATE mls/min
5	11.2	2	2.24	
10	20.0	2	2.00	1.76
15	28.8	2	1.92	1.76
20	39.0	2	1.95	2.04
25	47.2	2	1.89	1.64
30	56.8		1.89	1.92
35	66.6	2	1.90	1.96
40	76.4	2	1.91	1.96
45	86.0	2	1.91	1.92
55	104.6	2	1.90	1.86
65	122.8	2	1.89	1.82
75	141.6	2	1.89	1.88
85	160.6	2	1.89	1.90
95	179.4	2	1.89	1.88
105	198.4	2	1.89	1.90
115	217.2	2	1.89	1.88
120	226.8	2	1.89	1.92
123	232.0	2	1.89	1.73

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MILLED TAILINGS - METHOD 2 - DAY 37 LEACHING, PHASE 1 (PURGING LEACHATE)

ELAPSED TIME minutes	LEACHATE mls CUMULATIVE	PRESSURE PSI	FLOW RATE mls/minute CUMULATIVE	INTERVAL FLOW RATE mls/min
2	4.0	2	2.00	
4	7.0	2	1.75	1.50
6	10.6	2	1.77	1.80
8	14.6	2	1.83	2.00
10	19.0	2	1.90	2.20
12	22.2	2	1.85	1.60
14	26.0	2	1.86	1.90
15	27.5	2	1.83	1.50

MILLED TAILINGS - METHOD 2 - DAY 37 LEACHING, PHASE 2 (SAMPLE LEACHATE)

ELAPSED TIME minutes	LEACHATE mls CUMULATIVE	PRESSURE PSI	FLOW RATE mls/minute CUMULATIVE	INTERVAL FLOW RATE mls/min
5	8.6	2	1.72	
10	17.6	2	1.76	1.80
15	26.2	2	1.75	1.72
20	37.4		1.87	2.24
25	46.4	2	1.86	1.80
30	56.0	2	1.87	1.92
35	64.6	2	1.85	1.72
40	76.0	2	1.90	2.28
45	86.6	2	1.92	2.12
50	97.0		1.94	2.08
55	107.2	2	1.95	2.04
60	117.6	2	1.96	2.08
70	137.6	2	1.97	2.00
80	158.2	2	1.98	2.06
90	178.0	2	1.98	1.98
100	197.6	2	1.98	1.96
110	216.5	2	1.97	1.89
118	232.0	2	1.97	1.94

LEC 13 '93 13:43 CORE LAB-AUCKLAND CO