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Measurable levels of cyanide

Date	Cell Number(s)	Time Start	Time End	Pregnant Pond	Barren Pond	Stream	Discharge	pH
9-1	7, 9	15:00						
9-2	7, 9	08:30	08:30					
	8, 10	08:30	13:00					
9-3	14, 16, 18	13:00						
	" " "	-	08:00					
9-4	15, 17, 19	08:00						
	19	-	07:00					
9-4	15-17	-	15:30					
9-5	11-12-13	1530						
	12, 13		07:30					
9-5	" "		10:00					
	14, 16, 18	10:00						
9-6	14, 16, 18		15:00	Au 02/4 .026 PH CN- 9.07 .15+	Au 02/4 .019 PH CN- 8.27 .15	PH CN- 9.91 .2	PH CN- 8.79 .1+	
				Fresh H ₂ O off				.2 #/ton = .0001

100 ppm

Measurable levels of cyanide

Date	Cell Number(s)	Time Start	Time End	Pregnant Pond	Barren Pond	Stream	Discharge	pH
8-21	14, 16, 18		17:00					
	7-9	17:00	21:30					
	8, 10	21:30						
8-22	" "		01:00					
	5, 6	01:00	09:00					
	1, 4	09:00						
8-25	15, 17, 19	15:00	01:00 (8/26)					
8-26	11, 12	01:00	08:00	→ Shut down - Blown line				
8-26	14, 16, 18	15:00	23:00	→ Shut down GEN SET struck by lightning				
8-28	14, 16, 18	09:30	18:00					
8-28	15, 17, 19	18:00	11:00					
8-28	7, 9	11:00	15:30			Start Detox		
	8, 10	15:30	21:30					
	14, 16, 18	21:30						
8-29	14, 16, 18		15:00	8.70 .2	8.17 .15	9.69 .2	8.80 .15	
	11, 12, 13	15:00	20:00	19:00	SHUT DOWN DETOX			
8-30	5, 6	20:00/8-29						
	5, 6		11:30					
	7, 9	11:30	13:00					

Measurable levels of cyanide

Date	Cell Number(s)	Time Start	Time End	Pregnant Pond	Barren Pond	Stream	Discharge	pH
8/11	11, 12 7, 9	15:00 13:00	11:00	8/12 11:00 13:00	shut down to repair barren line Restart			
8/12	11, 12 7, 9	13:00	11:00 20:00					
8/13	15, 17, 19, 11 11 15, 17, 19	20:00 19:00	10:00 10:30	shut down to repair barren line 17 shut down				Start DSTOX
8/14	15, 17		21:00					
8/15	14, 16, 18 16	21:00	08:00	21:00				
8/15	11, 12, 13	11:00		pH CN- 9.05 .2+	pH CN- 8.2 .15-.2	pH CN- 9.6 .2+	pH CN- 8.65 .15	
8/16	.11		15:00					
8/18	11, 12, 13	15:00						
8/19	" " " 7, 9 8, 10 15, 17, 19	08:00 12:00 16:00	08:00 12:00 16:00					
8/20	" " " 14, 16, 18	18:00	18:00					
8/21				pH CN- 8.88 .2	pH CN- 8.04 .15	pH CN- 9.78 .2	pH CN- 8.77 .15	

Measurable levels of cyanide

Date	Cell Number(s)	Time Start	Time End	Pregnant Pond	Barren Pond	Stream	Discharge	pH
7/30	7, 9 8, 10 16, 18, 19	12:00 15:15 19:30	15:15 19:30					
7/31	14, 16, 18 11, 12, 13 7, 3, 8	12:00 12:00	12:00	pH CN 9.15 .2+	pH CN 8.10 .15	pH CN 9.72 .2+	pH CN 8.71 .1+	
		SHUT DOWN DETOX						
8/1	11, 12, 13 5, 6 15, 17, 19	05:00 18:00	05:00 18:00					
8/2	19 15, 17		08:00 15:00					
8/4	7, 9 8, 10	16:00 19:30	19:30 22:30					
8/5	11, 12, 13 11, 12, 13 15, 17, 19	22:30 13:00	13:00					
8/6	17, 19		08:00					
8/7	14, 16, 18 14, 15, 16, 18 1, 4 5, 6	08:00 09:30 23:00	09:30 23:00			08:30 Shut down to repair line 15:00 Restart 16:00 Start Detox		
				pH CN- 9.21 .2-25	pH CN- 8.25 .15-.2	pH CN- 9.65 .2-25	pH CN- 8.80 .1-.15	
8/8	5, 6 11, 12, 13 15, 17, 19	08:30 08:30 19:00	08:30 19:00			17:30 Shut Down Detox		
8/9	15, 17, 19		15:00					

HR Block 684-7952 *

A.F. BUDGE (MINING) LIMITED

VULTURE MINE

ASSAYS

DATE	SAMPLE	A U		Na CN lb/t	PH	REMARKS
		PPM	oz/t			
2400	Discharge	0	<.001			
00:30	"	0	<.001			
01:00	"	0	<.001			
01:30	"	0	<.001			
02:00	"	0	<.001			
02:30	"	0	<.001			
03:00	"	0	<.001			
03:30	"	0	<.001			
04:00	"	0	<.001			
04:30	"	0	<.001			
05:00	"	0	<.001			
05:30	"	0	<.001			
1-17-90						
0600	DISCHARGE	0	<.001			
0630	"	0	<.001			
0700	"	0	<.001			
0730	"	0	<.001			
0800	"	0	<.001			
0830	"	0	<.001			
0900	"	0	<.001			
0930	"	0	<.001			
1000	"	0	<.001			
1030	"	0	<.001			
1100	"	0	<.001			
1130	"	0	<.001			
1200	"	0	<.001			
1230	"	0	<.001			
1300	"	0	<.001			
1330	"	0	<.001			
1400	"	0	<.001			
1430	"	0	<.001			
1500	"	0	<.001			
	FEED	.42	0.12			
	STREAM	NA				
	GARDEN	0				
15:30	"	0	<.001			
16:00	"	0	<.001			
16:30	"	0	<.001			
17:00	"	0	<.001			
17:30	"	0	<.001			
18:00	"	0	<.001			

PPM Au x 0.029 = oz/t

50 SHEETS
22-141
100 SHEETS
22-142
200 SHEETS
22-144



-16
cont

A. F. BUDGE (MINING) LIMITED

VULTURE MINE

ASSAYS

DATE	SAMPLE	A U		Na CN lb/t	pH	REMARKS
		PPM	oz/t			
1/16/90	Discharge					
7:30	"	Ø	2.001			
8:00	"	Ø	2.001			
8:30	"	Ø	2.001			
9:00	"	Ø	2.001			
0930	"	Ø	2.001			
1000	"	Ø	2.001			
1030	"	Ø	2.001			
	STREAM	.45	.013			
	FEED	.47	.014			
	BARREN	Ø	2.001			
	LEAK #1	1.78	.052			
	LEAK #2	1.38	.40			
11:00	"	Ø	2.001			
11:30	"	Ø	2.001			
12:00	"	Ø	2.001			
12:30	"	Ø	2.001			
1:00	"	Ø	2.001			
1:30	"	Ø	2.001			
2:00	"	Ø	2.001			
2:30	"	Ø	2.001			
3:00	"	Ø	2.001			
3:30	"	Ø	2.001			
4:00	"	Ø	2.001			
1430	"	Ø	2.001			
1700	"	Ø	2.001			
1730	"	Ø	2.001			
18:00	"	Ø	2.001			
18:30	"	Ø	2.001			
19:00	"	Ø	2.001			
"	Barrick	Ø	2.001	0.9	11.26	
"	Feed	.41	.012	0.7	11.26	
"	Stream	.39	.011	0.6	11.29	
19:30	Discharge	Ø	2.001			
20:00	"	Ø	2.001			
20:30	"	Ø	2.001			
21:00	"	Ø	2.001			
21:30	"	Ø	2.001			
22:00	"	Ø	2.001			
22:30	"	Ø	2.001			
23:00	"	Ø	2.001			
23:30	"	Ø	2.001			

PPM Au x 0.029 = oz/t

22-141 50 SHEETS
 22-142 100 SHEETS
 22-144 200 SHEETS



A. F. BUDGE (MINING) LIMITED

VULTURE MINE

ASSAYS

DATE	SAMPLE	AU		Na CN lb/t	PH	REMARKS
		PPM	oz/t			
1-15-90	STREAM	.44	.013	.6	11.04	
	ESD	.49	.014	.6	10.94	
	BADDEW	Ø	1.001	1.1	11.11	
	LEAK #1					
	LEAK #2	1.47	.043	.7	9.57	
10:30	DISCHARGE		1.001			
11:00	"	Ø	1.001			
11:30	"	.02	1.001			
12:00	"	.20	1.006			
13:00	"	Ø	1.001			
13:30	"	Ø	1.001			
14:00	"	Ø	1.001			
14:30	"	0.10	0.03			
15:00	"	Ø	1.001			
15:30	"	Ø	1.001			
16:00	"	Ø	1.001			
18:20	"	Ø	1.001			
18:45	"	Ø	1.001			
19:00	Barren	.02	1.001	0.8	11.43	
"	Feed	.45	.013	0.7	11.40	
"	Stream	.39	.011	0.7	11.48	
19:30	Discharge	Ø	1.001			
20:00	"	Ø	1.001			
20:30	"	.10	.003			
21:00	"	Ø	1.001			
21:30	"	Ø	1.001			
22:00	"	Ø	1.001			
22:30	"	Ø	1.001			
23:00	"	Ø	1.001			
24:00	"	Ø	1.001			
00:30	"	Ø	1.001			
01:30	"	.02	1.001			
02:00	"	Ø	1.001			
02:30	"	.12	.003			
03:00	"	Ø	1.001			
03:30	"	.03	1.001			
04:00	"	102	1.001			
05:30	"	Ø	1.001			
06:00	"	Ø	1.001			
06:30	"	Ø	1.001			
7:00	"	Ø	1.001			

PPM Au x 0.029 = oz/t

22-141 50 SHEETS
 22-142 100 SHEETS
 22-144 200 SHEETS



A. F. BUDGE (MINING) LIMITED

VULTURE MINE

ASSAYS

DATE	SAMPLE	A U		Na CN lb/t	PH	REMARKS
		PPM	oz/t			
1-12-90 18:00	DISCHARGE STREAM FEED	Ø	1.001			
18:30	BARRON DISCHARGE	Ø	1.001			
19:00	"	Ø	1.001			
19:30	"	Ø	1.001			
20:00	"	Ø	1.001			
20:30	"	Ø	1.001			
21:00	"	Ø	1.001			
21:30	"	Ø	1.001			
22:00	"	Ø	1.001			
22:30	"	Ø	1.001			
23:30	"	Ø	1.001			
23:30	"	Ø	1.001			
24:00	"	Ø	1.001			
1-13-90 00:30	"	Ø	1.001			
01:00	"	Ø	1.001			
01:30	"	Ø	1.001			
02:00	"	Ø	1.001			
02:30	"	Ø	1.001			
03:00	"	Ø	1.001			
03:30	"	Ø	1.001			
04:00	"	Ø	1.001			
04:30	"	Ø	1.001			
05:00	"	Ø	1.001			
05:30	"	Ø	1.001			
06:00	"	Ø	1.001			
06:30	"	Ø	1.001			
07:00	"	Ø	1.001			
07:30	"	Ø	1.001			

PPM Au x 0.029 = oz/t

NIGHT SHIFT
1-12-90

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS



LAKE DORCE (DORNING) LIME

VULTURE MINE

ASSAYS

DATE	SAMPLE	Au		NaCN lb/t	PH	REMARKS
		PPM	oz/t			
1-11-90	DISCHARGE					
22:30	"	Ø	1.001			
23:00	"	Ø	1.001			
23:30	"	Ø	1.001			
24:00	"	Ø	1.001			
00:30	"	Ø	1.001			
01:00	"	Ø	1.001			
01:30	"	Ø	1.001			
02:00	"	Ø	1.001			
02:30	"	Ø	1.001			
03:00	"	Ø	1.001			
03:30	"	Ø	1.001			
04:00	"	Ø	1.001			
04:30	"	Ø	1.001			
05:00	"	Ø	1.001			
05:30	"	Ø	1.001			
06:00	"	Ø	1.001			
6:30	"	Ø	1.001			
7:00	"	Ø	1.001			
7:30	"	Ø	1.001			
8:00	"	Ø	1.001			
8:30	"	Ø	1.001			
	Stream	.27	.008	.7	11.2	
	Feed	.23	.007	.6	11.9	
	Barren	Ø	1.001	.9	11.7	
	Leak #1	1.84	.053	.7	11.1	
	#2	1.41	.041	.3	9.5	
9:00	"	Ø	1.001			
9:30	"	Ø	1.001			
10:00	"	Ø	1.001			
10:30	"	Ø	1.001			
11:00	"	Ø	1.001			
11:30	"	Ø	1.001			
12:00	"	Ø	1.001			
12:30	"	Ø	1.001			
1:00	"	Ø	1.001			
1:30	"	Ø	1.001			
2:00	"	Ø	1.001			
2:30	"	Ø	1.001			
3:00	"	Ø	1.001			
3:30	"	Ø	1.001			
4:00	"	Ø	1.001			

$1 \text{ M Au} \times 0.029 = \text{oz/t}$

22-141 50 SHEETS
 22-142 100 SHEETS
 22-144 200 SHEETS



A. F. BUDGE (MINING) LIMITED

VULTURE MINE

ASSAYS

DATE	SAMPLE	A U		Na CN lb/A	PH	REMARKS
		PPM	oz/t			
7-10-90	DISCHARGE	∅				
06:30	"	∅	2.001			
07:00	"	∅	2.001			
07:30	"	∅	2.001			
08:00	"	∅	2.001			
08:30	"	∅	2.001			
10:00	"	∅	2.001			
11:00	"	∅	2.001			
12:00	"	∅	2.001			
A.A. BOWEN Being Repaired						
18:00	CONT ADJUST. AA					
22:00	DISCHARGE	∅	2.001	?		
06:00	DISCHARGE	∅	2.001			
06:30	"	∅	2.001			
07:00	"	∅	2.001			
07:30	"	∅	2.001			
8:30	"					Zn off
09:00	STREAM	144	.013			
"	FEED	146	.013			
"	BARREN	∅	2.001			
"	DISCHARGE	∅	2.001			
10:00	"	∅	2.001			
11:00	"	∅	2.001			
11:30	"	∅	2.001			
1:40	"	∅	2.001			
2:30	"	∅	2.001			
3:00	"	∅	2.001			
9:30	"	∅	2.001			
14:00	"	∅	2.001			
18:00	"	∅	2.001			
18:30	"	∅	2.001			
19:00	"	.03	2.001			
19:30	"	∅	2.001			
20:00	"	∅	2.001			
20:30	"	∅	2.001			
21:00	"	∅	2.001			
22:00	"	∅	2.001			

PPM Au x 0.079 = oz/t

22-141 50 SHEETS
 22-142 100 SHEETS
 22-144 200 SHEETS
 AMPAD

A. F. BUDGE (MINING) LIMITED

VULTURE MINE

ASSAYS

DATE	SAMPLE	A U		Na CN lb/t	PH	REMARKS
		PPM	oz/t			
1-2-90						
1000	DISCHARGE	Ø	4.001			
1100	"	Ø	4.001			
1130	"	Ø	4.001			
1200	"	Ø	4.001			
1300	STREAM	.47	.014	.5	10.7	
"	FEED	.48	.014	.3	9.53	
"	BARREN	Ø	4.001	.17	11.25	
"	DISCHARGE	Ø	4.001			
1400	"	Ø	4.001			
	LEACH 1	1.50				
1500	DISCHARGE	Ø	4.001			
1600	"	Ø	4.001			
1700	"	Ø	4.001			
18:00	"	Ø	4.001			
18:30	"	Ø	4.001			
19:00	"	.02	4.001			
19:30	"	Ø	4.001			
20:00	"	Ø	4.001			
20:30	"	Ø	4.001			
	STREAM	.36	.011	.8	10.7	
	FEED	.43	.013	.6	11.8	
	BARREN	Ø	4.001	.8	11.3	
21:00	DISCHARGE	Ø	4.001			
21:30	"	Ø	4.001			
22:00	"	Ø	4.001			
22:30	"	Ø	4.001			
23:00	"	Ø	4.001			
23:30	"	Ø	4.001			
24:00	"	Ø	4.001			
00:30	"	.02	4.001			
01:00	"	Ø	4.001			
01:30	"	Ø	4.001			
02:00	"	Ø	4.001			
02:30	"	Ø	4.001			
03:00	"	Ø	4.001			
03:30	"	Ø	4.001			
04:00	"	Ø	4.001			
04:30	"	.01	4.001			
05:00	"	Ø	4.001			
05:30	"	Ø	4.001			

PPM Au x 0.029 = oz/t

22-141 50 SHEETS
 22-142 100 SHEETS
 22-144 200 SHEETS



A. F. BUDGE (MINING) LIMITED

VULTURE MINE

ASSAYS

DATE	SAMPLE	A U		Na CN lb/t	PH	REMARKS
		PPM	oz/t			
1-9-90						
06:00	DISCHARGE	.03	1.001			
07:00	"	.07	1.001			
08:00	"	Ø	1.001			
09:00	"	Ø	1.001			
10:00	STREAM	.140	.012			
"	FEED	.51	.015			
"	BADDER	.01	1.001			
"	DISCHARGE	Ø	1.001			
10:30	"	Ø	1.001			
11:00	"	Ø	1.001			
11:30	"	Ø	1.001			
12:00	"	Ø	1.001			
16:30	"	Ø	1.001			
17:00	"	Ø	1.001			
17:30	"	Ø	1.001			
18:00	"	Ø	1.001			
18:30	"	Ø	1.001			
19:00	"	.04	.001			
19:30	"	Ø	1.001			
20:00	"	Ø	1.001			
20:30	"	Ø	1.001			
21:00	"	Ø	1.001			
21:30	"	Ø	1.001			
22:00	"	Ø	1.001			
22:30	"	Ø	1.001			
23:00	"	Ø	1.001			
23:30	"	Ø	1.001			
00:00	"	Ø	1.001			
00:30	"	Ø	1.001			
01:00	"	Ø	1.001			
01:30	"	Ø	1.001			
02:00	"	Ø	1.001			
02:30	"	.03	1.001			
03:00	"	.01	1.001			
03:30	"	.01	1.001			
04:00	"	.01	1.001			
04:30	"	Ø	1.001			
05:00	"	Ø	1.001			
05:30	"	Ø	1.001			
06:00	"	Ø	1.001			

PPM Au x 0.079 = oz/t

22-141 50 SHEETS
 22-142 100 SHEETS
 22-144 200 SHEETS



A.F. BUDGE (MINING) LIMITED

VULTURE MINE

ASSAYS

DATE	SAMPLE	AU		NaCN lb/t	PH	REMARKS
		PPM	oz/t			
9:30	Discharge	0	1.001			
10:00	"	0	1.001			
10:30	"	0	1.001			
11:00	"	0	1.001			
11:30	"	0	1.001			
12:00	"	0	1.001			
12:30	"	0	1.001			
1:00	"	0	1.001			
1:30	"	0	1.001			
2:00	"	0	1.001			
2:30	"	0	1.001			
3:00	"	0	1.001			
3:30	"	0	1.001			
4:00	"	0	1.001			
4:30	"	0	1.001			
5:00	"	0	1.001			
5:30	"	0	1.001			
6:00	"	0	1.001			
7:00	Plant Down					
7:30	DISCHARGE	0	1.001			
8:00	"	0	1.001			
8:30	"	0	1.001			
9:00	"	0	1.001			
9:30	"	0	1.001			
10:00	"	0	1.001			
10:30	"	0	1.001			
11:00	"	0	1.001			
11:30	"	0	1.001			
12:00	"	0	1.001			
12:30	"	0	1.001			
01:00	"	0	1.001			

PPM Au x 0.029 = oz/t

22-141 50 SHEETS
 22-142 100 SHEETS
 22-144 200 SHEETS



A. F. BUDGE (MINING) LIMITED

VULTURE MINE

ASSAYS

DATE	SAMPLE	Au		NaCN lb/t	PH	REMARKS
		PPM	oz/t			
1-4-90						
1100	DISCHARGE					
1130	STREAM	41	.012			
11	FEED	.40	.011	7	11.25	
11	BARREN	φ	1.001	9	11.32	
1200	DISCHARGE	φ	1.001			
1300	"	φ	1.001			
1400	"	φ	1.001			
1500	"	φ	1.001			
1600	"	φ	1.001			Zn off
1700	"	φ	1.001			
1730	"	.07	1002			Zn on
18:00	"	φ	1.001			
18:30	Barren	φ	1.001	1.0	11.44	
"	Feed	.40	.011	0.6	11.39	
"	Stream	.39	.011	0.6	11.14	
19:00	Discharge	φ	1.001			
20:00	"	.03	1.001			
20:30	"	φ	1.001			Zn off
21:00	"	φ	1.001			
22:00	"	φ	1.001			
22:30	"	φ	1.001			
23:00	"	φ	1.001			
24:00	"	.03	1.001			Zn on
00:30	"	φ	1.001			
01:00	"	φ	1.001			
02:00	"	φ	1.001			
02:30	"	φ	1.001			
03:00	"	.01	1.001			
03:30	"	φ	1.001			
04:00	"	.02	1.001			
04:30	"	φ	1.001			
05:00	"	φ	1.001			
05:30	"	φ	1.001			
1-5-90						
06:00	"	φ	1.001			
06:30	"	φ	1.001			
07:00	"	φ	1.001			
7:30	"	φ	1.001			
8:00	"	φ	1.001			
8:30	"	φ	1.001			
9:00	"	φ	1.001			

PPM Au x 0.077 = oz/t

22-141 50 SHEETS
 22-142 100 SHEETS
 22-144 200 SHEETS



A.F. BUDGE (MINING) LIMITED

VULTURE MINE 1990
PROJECT

ASSAYS

DATE	SAMPLE	Au		NaCN lb/A	PH	REMARKS
		PPM	oz/t			
05:00	Discharge	∅	<.001			
05:30	"	.03	<.001			
6:00	"	∅	<.001			
06:30	"	∅	1.001			
07:00	"	∅	1.001			
07:30	"	∅	1.001			
08:00	"	∅	1.001			
08:30	"	∅	1.001			
09:00	"	∅	1.001			
09:30	STREAM	.46	1.013	7	11.15	
10:00	FEED	.47	1.014	5	11.20	
10:30	BARREN	∅	1.001	9	11.25	
11:00	DISCHARGE	∅	1.001			
11:30	"	∅	1.001			
12:00	"	∅	1.001			
12:30	"	∅	1.001			
13:00	"	∅	1.001			
13:30	"	∅	1.001			
14:00	"	∅	1.001			
14:30	"	∅	1.001			
15:00	"	∅	1.001			
15:30	"	∅	1.001			
16:00	"	∅	1.001			
16:30	LEAK #1	1.92	.06			
17:00	LEAK #2	1.33	1.04			
17:30	BISCHMILK	.02	1.001			
18:00	"	.07	1.002			
18:30	"	AA acting up				
19:00	"	"	"			
20:00	"	∅	1.001			
21:00	"	∅	1.001			
22:00	"	∅	1.001			
23:00	"	∅	1.001			
24:00	"	∅	1.001			
01:00	"	∅	1.001			
02:00	"	∅	1.001			
03:00	"	∅	1.001			
04:00	"	∅	1.001			
05:00	"	∅	1.001			
06:00	"	∅	1.001			
07:00	"	∅	1.001			
08:00	"	∅	1.001			
09:00	"	∅	1.001			

PPM Au x 0.029 = oz/t

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS



A. F. BUDGE (MINING) LIMITED

VULTURE MINE

ASSAYS

02 JAN 90

DATE	SAMPLE	AU		NaCN lb/t	PH	REMARKS
		PPM	oz/t			
1-2-90	DISCHARGE					
09:30	"	.28	.008			
10:00	"	.15	.004			
10:30	"	.18	.003			
11:00	"	.0	2.001			
11:30	"	.0	2.001			
12:00	"	.0	2.001			
12:30	"	.0	2.001			
13:00	STREAM	.45	.013	7	11.16	
	FEED	.45	.013	4	11.34	
	BARREN	.0	2.001	8	11.35	
	DISCHARGE	.0	2.001			
15:00	"	.0	2.001			
16:00	"	.0	2.001			
16:30	"	.0	2.001			
17:00	"	.0	2.001			
17:30	"	.0	2.001			
18:00	"	.0	2.001			
18:30	"	.0	2.001			
18:45	Barren Feed	.42	.012	0.9	12.34	10.97
	Stream	.38	.011	0.6	12.03	
19:00	Discharge	.01	2.001		11.01	
19:30	"	.03	2.001			
20:00	"	.06	.002			
20:30	"	.0	2.001			
21:00	"	.0	2.001			
21:30	"	.0	2.001			
22:00	"	.0	2.001			
22:30	"	.0	2.001			
23:00	"	.03	2.001			
23:30	"	.0	2.001			
24:00	"	.0	2.001			
00:30	"	.0	2.001			
01:00	"	.0	2.001			
01:30	"	.0	2.001			
02:00	"	.02	2.001			
02:30	"	.0	2.001			
03:00	"	.0	2.001			
03:30	"	.0	2.001			
04:00	"	.04	.001			
04:30	"	.0	2.001			

PPM Au x 0.029 = oz/t

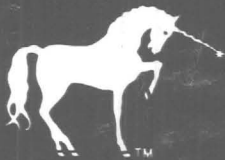
22-141 50 SHEETS
 22-142 100 SHEETS
 22-144 200 SHEETS



Mead

part of - 0049

Ben Franklin
\$2.49



120 sheets/wide ruled
10½x8in/26.7x20.3cm

3 subject notebook

05746 The Mead Corporation, Dayton, Ohio 45463



A.F. BUDGE MINING LTD

ASSAYS

Time	DATE	SAMPLE	AO ppm	oz/t	Nickel 10/t	PH
10:00	5-22-89	DISCHARGE	05	.001		*
10:30	"	"	.05	.001		
11:00	"	"	.03	L.001		
1:38	"	"	.25	.007		
3:00	"	"	.00	L.001		
	#1	.34	- 0.02			
	#2	.23	0.013			
2:00				L.001		
4:00			.44	.013		
4:15			.53	.015		
4:25			.66	.019		
4:55			.71	.021		
5:19			.59	.017		
8:00			.00	L.001		
18:30			.14	.004		
8:50			00	L.001		
9:10			.17	.005		
19:30			.05	.001		
19:50			.03	L.001		
20:15				L.001		
21:00			.10	.003		
22:00			.10	.003		
22:30			.15	.004		
22:45			.07	.002		

Time	Date	Sample	PPM Au	021+
23:00	5-22	Discharge	.12	.003
23:30	"	"	.05	.001
24:00	"	"	.09	.003
00:30	"	"	.12	.003
1:00	"	"	.15	.004
1:30	"	"	.09	.003
2:15	"	"	.14	.004
2:30	"	"	.10	.003
3:00	"	"	.11	.003
3:30	"	"	.10	.003
4:00	"	"	.05	.001
4:30	"	"	.10	.003
5:00	"	"	.14	.004
5:30	"	"	.05	.001
07:30	5-23	DISCHARGE	.03	<.001
"	"	FEED	1.12	.032
"	"	BARREN	.05	.001
"	"	STREAM	1.24	.036
8:30	"	DISCHARGE	.04	.001
9:00	"	"	.07	.002
10:00	"	"	.01	<.001
10:30	"	"	.00	<.001
11:00	"	"	.02	<.001
12:00	"	"	.09	.003
"	"	"	.00	<.001
1:10	"	"	.03	<.001

S-23-89

1140		.03	2.001
2110		.03	2.001
2:15	sample #1	1.84	.053
	#2	1.91	.055
	#5	1.78	.052
2:30		.00	2.001
3:15		.00	2.001
3:50		.00	2.001
4:30		.00	2.001
5:00		.00	2.001
5:30		.00	2.001
18:00			2.001
18:30			2.001
19:00	Barren	.10	.003
	Feed	.40	.012
	Stream	1.30	.038
	Discharge		2.001
19:30	"	.14	.004
19:45		.20	.006
20:00		.10	.003
20:15		.12	.003
20:45			2.001
21:15			2.001
22:00			2.001
22:45			2.001
23:30			2.001

10
20

Assays

5-23-89 Sample ppm 1 oz/t

24:00 out of Comp. Air

5-24-89

0800	DISCHARGE	.03	< .001
0830	"	.02	< .001
"	FEED	1.18	.034
"	STREAM	1.27	.037
0900	DISCHARGE	.02	< .001
1000	"	.07	.002
1100	"	.00	< .001
12:00	"	.02	< .001
12:30	"	.00	< .001
2:00	"	.03	< .001
3:00	"	.07	.002
4:00	"	.03	< .001
"	STREAM	1.38	.039
4:30	DISCHARGE	.04	.001
5:00	"	.41	.012
5:30	"	.15	.013
6:00	"	.12	.003
6:20	"		< .001
6:30	Barren		< .001
	Feed	1.11	.032
	Stream	1.19	.035
19:00	Discharge	.01	< .001
19:40	"		< .001

Assays

5-24-89 Cont

Time	Sample	PPM	Au / Oz/H
20:20	Discharge	∅	2.001
21:00	" (changed press)	.44	.013
21:15		.34	.010
21:30		∅	2.001
22:05			2.001
22:30			2.001
23:00			2.001
23:45			2.001
120			2.001
1:00			2.001
1:45		.06	.002
2:15		.07	.002
2:45		.05	.001
3:15		.04	.001
4:00			2.001
4:30			2.001
5:20			2.001
6:00	5-25-89		2.001
6:30			2.001
7:00			2.001
7:30			2.001
8:00			2.001
9:00			2.001
9:40			2.001
10:00			2.001
10:30			2.001

Day

5-25-89 (Cont)

Time	Sample	PPM ^{Au}	oz/T
11:00	Discharge	0	< .001
11:30		0	< .001
12:00			2.001
12:30			2.001
13:00			2.001
13:45		.02	2.001
14:00			2.001
14:30			< .001
15:00			< .001
15:30			< .001
16:00			< .001
16:30			2.001
			85 GPM
17:00		.04	.001
18:00		.00	< .001
18:00		.04	.001
18:30		.01	2.001
19:00			2.001
"	Barren		2.001
"	Feed	1.20	.035
"	Stream	1.32	.038
19:40	Discharge	1.03	2.001
20:05		.05	.001
20:45		.02	2.001
21:30			2.001
22:30		.04	.001
23:15			2.001

Time	Sample	Au	
5-25-89 Cont	Discharge	PPM	/ OZ/L+
00:15		0	<.001
01:00		.08	.002
01:40		.04	.001
02:20			<.001
03:05			<.001
03:45			<.001
04:30		.02	<.001
05:15		.05	.001
05:45			<.001
06:00		00	<.001
06:30	STREAM	1.32	.038
"	FEND	1.32	.038
"	BARREN	.02	<.001
07:00	Discharge	00	<.001
07:30	"	"	<.001
08:00	"	"	<.001
09:30	"	"	<.001
10:00	"	"	<.001
10:30	"	.02	<.001
12:30	"	00	<.001
02:30	"	.04	.001
03:30	"	00	<.001

Return flow - 34.5

Vacuum - 22

Flow Rate - 80

Reg Return -

Au -

PH - 11.37

CN - 1.0

Press Feed

Au -

PH -

CN -

Barron

Au -

PH -

CN -

4:30

11

.00

L.001

~~Night shift~~

~~Day shift~~

~~Total~~

5-29-89	Sample	ppm - ^{Au}	02/4
20:00	Discharge	0	<.001
20:30	"		<.001
"	Barren		<.001
"	Feed	1.25	.036
"	Stream	1.20	.035
21:00	Discharge		<.001
21:30	"		<.001
22:00			<.001
22:45			<.001
23:20			<.001
24:00			<.001
00:35			<.001
1:20			<.001
2:30			<.001
3:10			<.001
4:00			<.001
4:35			<.001
5:15		.02	<.001
5:45		.01	<.001
6:15	STREAM	1.10	.032
	FEED	1.30	.038
6:20	DISCHARGE	00	<.001
0700	"	"	<.001
0730	"	"	<.001
0830	"	108	.002
09:00	"	00	<.001

5-30-89

11:00	Discharge	05	.001
12:00		00	2.001
1:00		103	.001
2:00		104	1001
3:00		100	2.001
3:30		.00	2.001
4:10		.00	2.001
4:50		.00	2.001
5:20		.00	2.001
18:00			2.001
18:40		.04	.001
19:00	Barren		2.001
"	Feed	1.30	.038
"	Stream	1.35	.039
19:25	Discharge		2.001
20:40	"		2.001
21:30			2.001
22:15			2.001
23:00		.01	2.001
23:50			2.001
00:30		.03	2.001
1:20			2.001
2:00		.04	.001
3:00			2.001
3:45		1.03	2.001

		Au	
5-30-89	Sample	Ppm	- .02 lt
4:45	Discharge	0	<.001
5:15	"		<.001
5:45	"		<.001
6:30	"		<.001
0645	STREAM	1.55	.039
	FEED	1.24	.036
	BARRIS	0.0	<.001
0700	DISCHARGE	.04	.001
0730	"	.40	.003
	"	.07	.002
	"	.05	.001
10:00	"		<.001
10:30	"		<.001
11:08	"		<.001
11:30	"		<.001
12:15	"		<.001
1:00	"	.05	.001
1:30	"		<.001
2:30	"		<.001
3:00	"		<.001
3:30	"		<.001
4:00	"	.01	<.001
4:30	"		<.001
5:00	"	.01	<.001
5:30	"	.01	<.001

	Sample	PPM	A ₀ / A ₂ / +
5-31-89			
18:20	Discharge	0	<.001
19:00	Barron		<.001
"	Feed	1.17	.034
"	Return	1.12	.032
"	Discharge		<.001
19:45	"		<.001
20:20	"	.03	<.001
21:00		.01	<.001
21:30			<.001
22:20			<.001
23:15			<.001
24:00			<.001
00:45			<.001
1:30			<.001
2:15			<.001
3:00			<.001
3:45			<.001
4:35		.02	<.001
5:20			<.001
5:50			<.001
6:30			<.001
7:00			<.001
7:30			<.001
8:00		.04	.001
8:30			<.001
9:00			<.001

		AU	
6-1-89	Sample	P3M	oz/t
	DISCHARGE	.08	
10:40			4.001
11:10			4.001
11:30			4.001
12:05			4.001
1:00			4.001
2:00			4.001
2:30		.03	4.001
3:00			4.001
4:00		.00	4.001
5:00		.00	4.001
5:30		.00	4.001
18:00			4.001
18:40		.05	.001
19:00	Barren	.06	.002
"	Feed	1.33	.039
"	Stream	1.41	.041
"	Discharge	.02	4.001
19:45		.06	.002
20:00		.06	.002
20:30		.08	.002
21:00		.05	.001
21:30		.04	.001

5-1-89 Cont	Sample	PPM	Au / Oz / +
22:00	Discharge	.03	<.001
22:30	"		<.001
23:00		.05	.001
23:30		.05	.001
24:00		.02	<.001
00:30		.07	.002
1:00		.04	.001
1:30		.06	.002
2:05		.05	.001
2:40		.07	.002
3:30		.04	.001
4:00		.06	.002
4:30		.03	<.001
5:00		.02	<.001
5:30		.05	.001
7:00			<.001
7:30			<.001
8:00		.01	<.001
8:30			<.001
9:00		.03	<.001
9:30			<.001
10:30		.00	<.001
12:00		.00	<.001
"	STREAM	1.28	1037
12:30	DISCHARGE	.00	<.001

1:00	.00	L.001
1:30	.02	L.001
2:00	.02	L.001
2:30	.01	L.001
3:00		L.001
3:30		L.001
4:00		L.001
4:30	.02	L.001
5:00		L.001
5:30		L.001
6:30		L.001
7:00		L.001
8:00	.06	.002
8:30	.05	.001
9:00		L.001
9:30		L.001
10:00		L.001
10:30	.04	.001
11:00	.03	L.001
11:30	.04	L.001
8:15	.02	L.001
6/2/89		

Vacuum - 22

Return Flow - 40.5

~~Prey~~ Return

6/3/89

Preg Return

AU - .033

PH - 11.73

CN - .7

Pres Feed

AU - .036

PH - 11.53

CN - .8

Darron

AU - .001

PH - 11.37

CN - .1

Flow Rate to press - 86

9:30	.01	2.001
10:00	.02	2.001
11:15	.00	2.001
11:45	.03	2.001
12:15	.02	2.001
12:40	.04	.001
1:30	.03	2.001
2:00	.01	2.001
2:30	.04	2.001

Dams
 KMP
 Roberts Test
 5/17-8805

5 JUN 89

0600	DISCHARGE	.45	.014
0730	"	.10	.003
0800	"	.00	L.001
0835		.00	L.001
0900		.00	L.001
0930		.00	L.001
1000		.00	L.001
1045		.03	.001
1110		.00	L.001
1200		.12	.003

- 1 25" BOTTLEROLL
- 2 45" "
- 3 17" "
- 4 24" "

1230	DISCHARGE	.08	.002
1100		.20	.006
1130		.10	.002
2:00		.14	.004
2:30		.14	.004
2:40	"	.03	L.001
3:00		.1	.003
4:00		.21	.006
5:00		.20	.006
5:30		.27	.008

		PPM	02/4
6-5-89 Cont			
17:50	Discharge	.52	.015
18:00	"	.15	.004
18:10	"	.03	<.001
18:20		.03	<.001
18:45		.02	<.001
19:00	Barren	.07	.002
"	Feed	1.29	.037
"	Return	1.10	.032
19:45	Discharge	.05	.001
19:45		.04	.001
20:15			<.001
20:45			<.001
21:15			<.001
21:45		.12	.003
22:00		.05	.001
22:30			<.001
23:05			<.001
24:00			<.001
00:35		.03	<.001
1:05		.02	<.001
1:45			<.001
2:30			<.001
3:15			<.001
4:00			<.001
4:40			<.001
5:15			<.001

Time/
Date

Sample

PPM

As

0.214

545/6-5

Discharge

0

L.001

6-6-89

DISCHARGE .05 .001

STREAM 1.05 .030

FEED 1.30 .037

BARREN .05 .001

0770 DISCHARGE .00 L.001

8:15 .00 L.001

0845 .00 L.001

0930 .03 L.001

#1 .17 25 17 20 .012

#2 .39 48 30 53 .030

#3 .08 20 19 25 .015

#4 .30 20 20 .012

#1 .10 .001

#2 1.53 .09

#3 .18 .010

#4 .26 .015

#5 .04 .002

#6 .34 .02

#7 .20 .012

#8 .37 .022

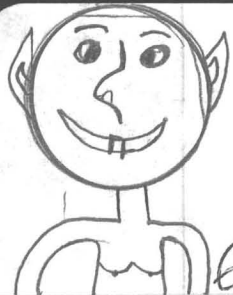
10:35 .00 L.001

11:15 .00 L.001

11:25 .00 L.001

66

12:00			.00	L.001
12:30			.00	L.001
11:00			.00	L.001
1:30			.00	L.001
2:00			.00	L.001
2:30				
3:00			.00	L.001
3:30			.00	L.001
4:00			.00	L.001
1 30	20	.012		
2 36	27	.016		
3 38	33	.019		
4 34	29	.017		
5 32	30	.017		
4:30			.00	L.001
5:00			.00	L.001
5:30			.00	L.001
6:00			.00	L.001
6:30			.00	L.001
7:00			.00	L.001
7:30				L.001
8:00				L.001
8:30				L.001
9:00				L.001
9:30				L.001
10:00				L.001



6-6

10:30	dis charge	.00	L.001
11:00			L.001
11:30			L.001
12:00			L.001
12:30			L.001
1:00			L.001
1:30			L.001
2:00			L.001
2:30			L.001
3:00			L.001
3:30			L.001
4:00			L.001
4:30			L.001
5:00			L.001
5:30			L.001
6:30	"		L.001
7:30	"		L.001
8:30	"		L.001
9:30	"		L.001
12:00	"		.25

6-7-69

Roll	SAMPLES	#1	10 x2	.006
		#2	.42 x2	.024
11:00			.00	L.001
2:30			.00	L.001
2:20			.00	L.001

~~Day TOTAL 329.75 GAL~~

6-7 CONTINUED

4:00	DISCHARGE	.00	2.001
4:30		.00	2.001
5:00		.00	2.001
5:30		.00	2.001
18:00			2.001
18:40			2.001
19:00	Barren		2.001
"	Feed	1.15	.033
"	Return	1.04	.030
"	Discharge		2.001
19:45	"	.02	2.001
20:20			2.001
21:05			2.001
21:45			2.001
22:30			2.001
23:15			2.001
24:00			2.001
00:50			2.001
1:40			2.001
2:15			2.001
3:00			2.001
3:45			2.001
4:30			2.001
5:10			2.001
5:45			2.001

112

NOK AF-31356 JAP ON

NTD
4T-25580

6-8-89

0630	DISCHARGE	.00	L.001
0700	BARREN	.00	L.001
"	STREAM	1.00	1.029
"	FEED	1.10	1.032
"	DISCHARGE	.00	L.001
0770	"	.00	L.001
0830	"	.00	L.001
0940	"	.00	L.001
1030	"	.00	L.001
1100	"	.00	L.001
1200	"	.00	L.001
100	"	.00	L.001
200	"	.00	L.001
2:30	"	.00	L.001
3:30	"	.00	L.001
4:30	"	.00	L.001
5:00	"	.00	L.001
18:00			L.001
18:40			L.001
19:20			L.001
19:45	Barren	.01	L.001
	Feed	1.24	.036
	Return	1.34	.039
19:55			L.001
20:40			L.001
21:25			L.001

6-8889 Cont	Discharge	PPM	0.14
22:20	"	0	<.001
23:15			<.001
24:00			<.001
1:50			<.001
1:45			<.001
2:35			<.001
3:25			<.001
4:00		.03	<.001
4:30			<.001
5:00			<.001
5:00	Feed	1.20	.035
5:30	Discharge		<.001
6:30	"	.00	<.001
7:30	"		<.001
8:30	"		<.001
9:30	"		<.001
10:30	"		<.001
11:30	"		<.001
		.00	<.001
1:30		.00	<.001
3:30		.00	<.001
4:00		.00	<.001
4:30		.03	<.001
5:00		.00	<.001
5:30			

6/12/89

10:05	Discharge	.13	.004
10:15		.00	L.001
10:50		.01	L.001
11:55		.00	L.001
12:20		.00	L.001
1:10		.00	L.001
1:35		.00	L.001
3:00		.03	L.001
3:30		.00	L.001
4:00		.01	L.001
4:30		.03	L.001
5:00		.03	L.001
5:30		.03	L.001
19:00		.05	.001
"	Barren	0	L.001
"	Feed	1.23	.036
"	Stream	.98	.028
19:30	Discharge	0	L.001
20:00			L.001
20:30		.04	.001
21:00			L.001
21:30			L.001
22:10		.07	.002
22:50		.10	.003
23:05		.10	.003

6-12-89 cont

~~Discharge~~
Discharge

Av

Time	ppm	Av
23:30	.08	.002
24:00	.06	.002
00:30	.03	<.001
1:00	.02	<.001
1:30	.05	.001
2:10	.22	.006
2:30	.15	.004
2:55		<.001
3:35		<.001
4:25		<.001
5:00	.04	.001
5:30	.02	<.001
6:15	.03	<.001
7:00	.24	.007
7:15	.09	.002
7:30	.03	<.001

6/13/89

Feed $\text{CN}^- = .9$ pH = 11.39 1.28 .037
 Stream $\text{CN}^- = .8$ pH = 11.46 1.32 .038
 Barren $\text{CN}^- = .7$ pH = 11.15 0.18 .003

Time	ppm	Av
8:00	0.14	.004
8:20	0.13	.004
8:35	0.15	.004
8:50	0.05	.001
9:20		<.001
9:50	.00	<.001
10:15	.00	<.001

VANCE

G-13 Cost

10:45	Discharge	.00	2.001		
11:10		.02	2.001		
11:40		.01	2.001		
12:10		.02	2.001		
12:45		.00	2.001		
1:35		.00	2.001		
2:15		.00	2.001		
2:40		.00	2.001		
3:20		.00	2.001		
4:00		.00	2.001		
4:30		.00	2.001		
5:10		.03	2.001		
10:00	(new press)	.20	.006		
10:15		.10	.003		
18:30		.02	2.001		
19:00		.02	2.001		
	Barren	CN 1.2	pH 11.06	.03	2.001
	Feed	0.9	11.39	1.22	.035
	Return	0.7	11.41	1.84	.053
19:30	Discharge				2.001
20:00					2.001
20:30				.05	.001
21:00				.21	.006
21:15				.02	2.001
21:45					2.001

6-13 Cont

Sample
Discharge

A₀

PPM

O₂/+

CN

pH

22:15

"

.18

.005

22:35

.20

.006

22:55

.04

.001

23:30

.02

<.001

24:00

<.001

00:30

.02

<.001

1:00

<.001

1:30

.01

.001

2:00

.48

.014

2:15

.79

.023

2:30

.15

.004

2:45

.08

.002

3:00

.15

.004

3:15

.10

.003

3:30

.08

.002

3:45

.11

.003

4:00

.14

.004

4:15

.14

.004

4:30

.02

<.001

5:00

.02

<.001

5:30

.04

.001

6:00

<.001

6:30

<.001

7:00

<.001

6/11A	<u>sample</u>	<u>ppm</u>	<u>oz/t</u>	<u>CN -</u>	<u>pH</u>
	Barren	0.13	.004	1.0	11.2
	Stream	1.58	.046	.8	11.4
	Feed	1.28	.037	.8	11.4

7:30	Discharge	.03	<.001		
8:00	"		<.001		
8:30	"		<.001		
9:15	"		<.001		
9:45	"		<.001		
10:15	"	traces	<.001		
10:40		.00	<.001		
11:15		.02	<.001		
12:00		.02	<.001		
4:40		.00	<.001		
5:10		.00	<.001		
6:00		.00	<.001		WITE AL
6:30		.00	<.001		
7:00		.01	<.001		
8:00		.00	<.001		
8:30		.01	<.001		
9:00		.03	<.001		INCREASE ZINC

Sample	Return Solution	ppm	oz/t	CN -	pH.
			1040		11.4 6pm-19.1
9:30		.01	<.001		
10:00		.01	<.001		
10:30		.01	<.001		

11:00	Discharge	.00	4.001
11:30		.00	4.001
12:00		.00	4.001
12:30		.00	4.001
1:00		.00	4.001
1:30		.00	4.001
2:00		.00	4.001
2:30		.00	4.001
3:00		.00	4.001
3:30		.00	4.001
4:00		.00	4.001
4:30		.00	4.001
5:00		.00	4.001
5:30		.00	4.001

6/15/89	SAMPLE	ppm	oz/t	plt	CN ⁻
6:00	Discharge		<.001		<.001
	FEED	1.20	.035		
	STREAM	0.70	.020		
	BARREN	0	<.001	11.1	1.0
6:30	Discharge		<.001		
7:00	"		<.001		
7:30	"		<.001		
8:00	"		<.001		
8:30	"		<.001		
9:00	"		<.001		

TIME	SAMPLE	ppm	oz/t	pH	CN ⁻
9:45	Discharge		<.001		
10:20	"		L.001		
10:10	"	trace	<.001		
11:00	"	.00	L.001		
11:30	"	.00	L.001		
12:00	"		<.001		
12:30	"	.00	L.001		
13:10	"	.00	L.001		
13:34	"	.01	L.001		
14:00	"		<.001		
14:37	"	.00	L.001		
15:30	"	.00	L.001		
16:00		.00	L.001		
16:48		.00	L.001		
17:20		.00	L.001		
17:55		.00	L.001		
18:10			<.001		
18:30			<.001		
19:05			<.001		
19:15	Barren		<.001	11.09	1.1
"	Feed	1.09	.032	11.31	0.8
"	Stream	1.05	.030	11.34	0.8
19:30	Discharge	.03	L.001		
19:55	"	.05	.001		
20:30		.10	.003		
21:00			<.001		

Time Date	Sample	PPM	Oz/t	pH	CN ⁺
6-15 cont 21:30	Discharge	0	4.001		
22:00	1	.02	< .001		
22:30			< .001		
23:10			< .001		
23:45			< .001		
00:15			< .001		
00:45			< .001		
1:15		.03	< .001		
1:45			< .001		
2:00	Feed	1.20	.035		
"	Stream	.96	.028		
2:20	Discharge		< .001		
3:00	1	.02	< .001		
3:30	1	.03	< .001		
4:00	1		< .001		
4:30	1		< .001		
5:00	1	.05	.001		
5:15	1	.02	< .001		
5:45	1	.04	.001		
<u>6/16/89</u>					
6:15	Discharge		< .001		
	Feed	1.15	.033		
	Stream	.93	.027		
	Barren		< .001		
6:50	Discharge		< .001		
7:30	"	.02	< .001		

Time / Date	Sample	PPM	O ₂ / t	PH	CN -
6/16/89	Discharge	.001	2.001		
8:45	"	0.08	.002		
9:15	"	0.02	2.001		
9:30		.01	2.001		
10:00			2.001		
10:40		.00	2.001		
11:15		.00	2.001		
12:00		.14	.004		
12:05		.00	2.001		
12:35		∅	2.001		
1:10		.00	2.001		
1:40		.00	2.001		
2:15		.00	2.001		
2:45		.00	2.001		
3:30		.00	2.001		
4:00		.00	2.001		
4:30		.00	2.001		
5:00		.00	2.001		
5:30		.00	2.001		

Return flow 40.5

Vacuum

flow Rate to press

Preg Return	AU.	PH. 11.43	CN. .6
Press feed	AU.	PH. 11.01	CN. .1
Barron	AU.	PH.	CN

Time/Date	Sample	PPM	O ₂ /t	PH	CM-
0730	DISCHARGE	.57	.017		
11	STREAM	1.15 .95	.028	.033	
11	FEED	1.15 1.05	.030	.033	
BA	BARREN	.00	<.001		1.0
0730	DISCHARGE	.38	.011		
0800		.036	.010		
0815		.030	.009		
8:35		.0033	<.001		
9:00			<.001		
9:50		.005	.001		
10:30		.22	.006		
10:45		.22	.006		
11:00		.24	.007		
12:15			<.001		
12:30			<.001		
13:05		.02	<.001		
13:40			<.001		
14:20			<.001		
15:10			<.001		
15:40			<.001		
16:10			<.001		
16:30		.01	<.001		
17:00			<.001		
17:30		.01	<.001		
18:00			<.001		
18:30			<.001		

Time/Date	Sample	PPM	O ₂ /+	pH	CN
6/19/89 19:00	Barren	.01	<.001	10.86	1.2
"	Feed	.96	.028	11.22	0.8
"	Stream	1.20	.035	11.39	0.7
"	Discharge		<.001		
19:30	"		<.001		
20:00			<.001		
20:45			<.001		
21:30			<.001		
22:15		.01	<.001		
23:00		.10	.003		
23:30		.04	.001		
24:00			<.001		
00:45			<.001		
1:30		.05	.001		
2:00		.10	.003		
2:40		.05	.001		
3:15		.07	.002		
3:45		.02	<.001		
4:15			<.001		
5:00			<.001		
5:30			<.001		
<u>6/20/89</u>					
6:05	Discharge		<.001		

Time/Date	Sample	PPM	colt	pH	CM -
6/20 cont	Barren		.04	10.87	1.2
	feed		.029	11.25	.7
	Stream		.039	11.50	.9

Discharge
Return flow Rate 29.0

7:00		.00	L.001		
7:20		.02	L.001		
8:00		.02	L.001		
8:30		.00	L.001		
9:00		.00	L.001		
9:30		.00	L.001		
10:00		.00	L.001		
10:30		.02	L.001		
11:00		.04	.001		
11:30		?	?		
12:05		.28	.008		
12:25		.08	.002		
1:00		.00	L.001		
1:30		.00	L.001		
1:40		.00	L.001		
2:10		.00	L.001		
2:40		.00	L.001		
3:10		.00	L.001		
3:55			L.001		
4:30		.00	L.001		

Time	Sample	PPM	O ₂ / +	pH	CN -
6/20 5:00	Discharge	.00	L.001		
5:30	"	.00	L.001		
18:00			L.001		
18:30			L.001		
19:00	Barren	0	L.001	10.65	1.2
"	Feed	1.10	.032	11.02	0.8
"	Stream	1.30	.038	11.19	0.8
"	Discharge		L.001		
19:30			L.001		
20:00		.05	.001		
20:30		.11	.003		
21:00		.06	.002		
21:30		.08	.002		
22:00		.00	L.001		
22:30		.01	L.001		
23:15			L.001		
24:00			L.001		
00:45			L.001		
1:30			L.001		
2:15		.03	L.001		
2:50		.08	.002		
3:30		.02	L.001		
4:15			L.001		
5:00			L.001		
5:30			L.001		

Time/Date	Sample	PPM	O ₂ /t	pH	CN-
6-21-89 5:00	Discharge	∅	2.001		
	Barren	∅	2.001	11.4	
	Feed	1.0	.029	11.6	
	Stream	1.06	.031	11.8	
7:30	Discharge	.14	.004		
8:00	"	.03	2.001		
8:30	"	.04	.001		
9:00	"	∅	2.001		
9:30		.00	2.001		
10:00		.00	2.001		
10:30		.00	2.001		
11:00		.02	2.001		
11:30		.02	2.001		
12:00		.03	2.001		
12:30		.01	2.001		
13:00		.00	2.001		
13:30		.00	2.001		
14:00		.00	2.001		
14:30		.00	2.001		
15:00		.00	2.001		
15:30		.00	2.001		
4:00		.00	2.001		
4:30		.02	2.001		
5:00		.00	2.001		
5:30		.00	2.001		

Time/Date	Sample	PPM	O ₂ /t	PH	CN-
6/22 6:05	Discharge		<.001		
6:40			<.001		
7:00	Barren	⊖	<.001	11.57	1.2
"	Feed	1.09	.032	11.70	0.8
"	Stream	1.16	.034	12.05	0.8
"	Discharge		<.001		
19:30	"		<.001		
20:15	"		<.001		
21:00			<.001		
21:30			<.001		
22:15			<.001		
23:00			<.001		
23:50		.07	.002		
00:15		.02	<.001		
1:00			<.001		
1:45		.08	.002		
2:15		.06	.002		
3:00			<.001		
3:30		.03	<.001		
4:15			<.001		
4:45			<.001		
5:15		.01	<.001		
5:45		.04	.001		

Time/ Date	Sample	PPM	oz/t	pH	CW-
6/23/89					
6:15	Discharge	∅	4.001	11.5	
7:00	"	∅	4.001		
	Barren	∅	4.001	11.6	
	Feed	1.15	.033	11.6	
	Stream	1.16	.033		
0730	DISCHARGE	∅	4.001		
0800	"	∅	4.001		
8:15	"	∅	4.001		
9:00	"	∅	4.001		
9:30		.7	.002		
10:00	"	.10	.003		
10:30		.03	4.001		
11:00	"	∅	4.001		
11:30		.01	4.001		
12:06		.00	4.001		
12:30		.03	4.001		
1:00		.00	4.001		
2:00		.02	4.001		
2:30		.00	4.001		
3:00		.00	4.001		
3:30		.00	4.001		
4:07		∅	4.001		
4:30		.00	4.001		
5:00		.00	4.001		
5:30		.00	4.001		

Time/Date Sample PPM oz/T pH CN-

6/28/89 Return flow (35CPM) 0.96 0.028

7:45 .59 .017

8:00 .11 .003

Flow Rate to press #1 111 GPM

~~Return flow - PH - CN - AU.~~

~~Return flow Rate AU - CN - PH~~

Prep Return - AU - .027 CN - .3 PH - 11.8

Press feed - AU - .030 CN - .89 PH - 11.9

Barron - AU - 2.001 CN - .7 PH - 10.8

Return flow Rate - 47.2

vacuum Rate - 22

8:35 .00 2.001

8:50 .00 2.001

9:20 .00 2.002

9:50 .00 2.001

10:20 .00 2.001

10:50 .00 2.001

11:20 .00 2.001

11:50 .00 2.001

12:20 .00 2.001

12:50 .00 2.001

1:20 .00 2.001

1:50 .00 2.001

2:20 .00 2.001

2:50 .00 2.001

Time	Date	Sample	PPM	Oz/t	ph	CR
6/26 cont	3:10	Discharge	.02	2.001		
	3:50		.03	4.001		
	4:10		.00	4.001		
	4:50		.03	4.001		
	5:10		.02	4.001		
	18:35		.02	4.001		
	19:00		.26	.008		
	19:15		.24	.007		
		Barren	0	2.001	11.50	1.2
		Feed	.92	.027	11.85	0.8
		Stream	.85	.025	12.11	0.6
	19:30		.03	4.001		
	19:55		.02	4.001		
	20:30		.02	4.001		
	21:00		.03	4.001		
	21:30		.15	.004		
	21:50		.08	.002		
	22:25		.15	.004		
	22:50		0	<001		
	23:35		.01	<001		
	24:00		.06	.002		
	24:30		.09	.003		
	1:00		.04	.001		
	1:30		.03	2.001		
	2:00		0	<001		
	2:30			<001		

Date / Time

646 cont

Sample
Discharge

PPM

oz/t

pH

CN-

3:00

2.001

3:30

2.001

4:00

2.001

4:30

2.001

5:00

2.001

5:30

2.001

6:30

2.001

Barron

2.001

11.6

1.1

FEED

~~8~~

~~0.026~~

Stream

92

0.026

11.8

1.0

flow rate

40.5

GPM

7:00

discharge

2.001

8:00

2.001

8:30

2.001

9:00

2.001

9:30

2.001

10:00

2.001

10:30

2.001

11:00

2.001

11:30

2.001

12:00

2.001

12:30

2.001

2:30

2.001

3:00

2.001

3:30

2.001

Date	Time	Sample	PPM	oz/l	pH	CN-
6-27 cont	4:00	Discharge	.02	<.001		
	4:30		.04	.001		
	5:00		.04	.001		
	5:30		.07	.002		
	18:00		.05	.001		
	18:30		.06	.002		
	19:00	Barren	0	<.001	11.58	1.0
	"	Feed	.88	.026	11.85	0.7
	"	Stream	.71	.021	11.99	0.6
	"	Discharge	.15	.004		
	19:20	"	.12	.003		
	19:40		.02	<.001		
	20:20			<.001		
	20:50			<.001		
	21:30			<.001		
	22:10			<.001		
	22:45		.09	.003		
	23:15			<.001		
	24:00		.08	.002		
	00:30		.08	.002		
	1:20			<.001		
	2:00			<.001		
	2:45			<.001		
	3:35			<.001		
	4:20			<.001		
	5:00		.05	.001		

Date / Time	Sample	PPM	O ₂ / +	pH	CU-
6-27, cont 5:30	Discharge	0	2.001		
6-28-89 6:30			2.001		
7:00			2.001		
<hr/>					
	Barren	0	2.001	11.5	0.9
	Stream	.80	.023	11.9	
	FEED	.90	.026	/PM DEF	
	Flow Rate		47.2	GPM	
<hr/>					
7:30	Discharge		2.001		
8:30			2.001		
9:00			2.001		
9:30			2.001		
10:00			2.001		
10:30			2.001		
11:00			2.001		
11:30			2.001		
12:00			2.001		
13:30	.10		.003		
14:00	.11		.003		
14:30			2.001		
15:00	.00		2.001		
15:30	.04		.001		
16:00	.04		.001		
16:30	.06		.002		
17:00	.09		.009		
17:30	.02		2.001		

Date	Time	Sample	PPM	Oz/H	pH	CU-
6-28, Cont	18:00	Discharge	.03	<.001		
	18:30	"	.10	.003		
	19:00	Barren	0	<.001	11.55	1.0
	"	Feed	182	.024	11.84	0.8
	"	Stream	.70	.020	12.02	0.8
	"	Discharge	.11	.003		
	19:20	"	0	<.001		
	19:55			<.001		
	20:30			<.001		
	21:00		.09	.003		
	21:30		.01	<.001		
	22:15			<.001		
	23:00		.02	<.001		
	23:30		.05	.001		
	24:00		.04	.001		
	1:35		.15	.004		
	1:00		.02	<.001		
	1:35			<.001		
	2:15			<.001		
	3:00			<.001		
	3:45			<.001		
	4:30		.02	<.001		
	5:00			<.001		
	5:35			<.001		

8

Date / Time	Sample	PPM	O ₂ / t	pH	CU-
6/29/89					
6:00	Discharge		<.001		
	STREAM	.94	.027		.8
	Feed	1.00	.029	11.8	.8
	Barren		<.001	11.6	1.0
	Return Flow RATE		40.5 GPM		
7:05	Discharge		<.001		
7:30			<.001		
8:00			<.001		
8:30			<.001		
9:00		.13	.004		
9:30		.11	.003		
10:00		.13	.004		
10:30		.06	.002		
11:10		.07	.002		
11:45		.07	.002		
12:15		.15	.004		
12:45		.80	.023		
12:50		.50	.015		
12:55		.43	.012		
13:00		.28	.008		
13:05		.28	.008		
13:10		.18	.005		
13:15		.13	.004		
13:20		.09	.003		
13:35		.03	<.001		

Date / Time	Sample	PPM	oz / +	pH	CW-
6-29 150	Discharge	.04	.001		
14:20			<.001		
15:00			<.001		
15:35			<.001		
16:00		.00	4.001		
16:30		.00	4.001		
17:00		.02	4.001		
17:30		.00	4.001		

charge For 6-29-89
~~V-122~~

	W.T.	SN
V-122	2039.3	5.6
V-123	3732.7	7.0
V-124	3023.6	7.9
V-125	4323.6	9.9

18:00	Discharge	∅	<.001		
18:30		.02	2.001		
19:00	Barren		<.001	11.49	1.0
"	Feed	1.05	.030	11.54	0.8
"	Stream	.91	.026	11.89	0.7
"	Discharge		<.001		
19:30		.05	.001		
20:00		.05	.001		
20:30			<.001		

Date	Time	Sample	PPM	O ₂ /l	pH	CA-
6-29, cont	21:30	Discharge	.01	<.001		
	22:15	"	.02	<.001		
	22:45	"	.20	.006		
	23:15	"	∅	<.001		
	23:45	"		<.001		
	00:30	"		<.001		
	1:15	"	.04	.001		
	2:00	"		<.001		
	2:45	"		<.001		
	3:30	"	.03	<.001		
	4:00	"	.05	.001		
	4:30	"		<.001		
	5:00	"		<.001		
	5:35	"		<.001		
<hr/>						
6-30-89	6:10	"	∅	<.001		
		BARRER		<.001		
		FEED	1.06	.031		
		Stream	.92	.026		
		Return Flow rate		40.5		
	7:05	Discharge	.15	.004		
	7:15	"	.18	.005		
	7:25	"	.14	.004		
	7:35	"	.12	.003		
	7:55	"	.07	.002		

Date Time	Sample	PPM	OR/t	pH	CN-
8:15	Discharge	Ø	<.001		
8:45	"	.03	<.001		
9:15	"	.02	<.001		
9:45	"	Ø	<.001		
10:15	"	Ø	<.001		
10:45	"	Ø	<.001		
11:15	"	.04	.001		
11:45	"	.03	.001		
12:30	"	.00	<.001		
13:00	"	.00	<.001		
13:30	"	100	<.001		
14:00		.01	<.001		
14:50		.01	<.001		
15:00		.01	<.001		
7-3-89					
0730		.54	.006		
0800		.24	.007		
0830		.10	.003		
0900		.10	.003		
0930		.00	<.001		
1000		.00	<.001		
10:30					
19:15		.02	<.001		
19:30		.02	<.001		
20:00		.02	<.001		

Well Totalizer Reading - 4421100

Date/Time	Sample	PDM	oz/t	pH	GN -
7-3-89 Cont	Barren Feed Stream	.10	.003	11.24	1.3
20:00		.85	.025	11.20	0.7
		1.20	.035	11.72	0.8
20:30	Discharge	0	<.001		
21:00		.01	<.001		
21:30		.02	<.001		
22:00		0	<.001		
22:30		.06	.002		
23:00		.03	<.001		
23:30		.04	.001		
24:00		.05	.001		
24:30		.07	.002		
1:00		.05	.001		
1:30		.01	<.001		
2:00		0	<.001		
2:30		0	<.00		
3:15		.05	.001		
3:45		0	<.001		
4:30		.06	.002		
5:00		0	<.001		
5:30		0	<.001		
7-4-89					
6:00		.01	<.001		
6:30		.00	<.001		
7:00		.00	<.001		

Date

Time

Sample

ppm

oz/t

pH

CU -

7:30^{24 89}

.00

4.001

8:00

.00

4.001

8:30

.00

4.001

9:00

.00

4.001

9:30

.00

4.001

10:00

.00

4.001

10:30

.00

4.001

11:00

.01

4.001

11:30

.01

4.001

12:00

.00

4.001

12:30

.00

4.001

1:00

.00

4.001

1:30

.00

4.001

2:00

.00

4.001

2:30

.00

4.001

3:00

.00

4.001

3:30

.01

4.001

4:00

.01

4.001

4:30

.00

4.001

5:00

.00

4.001

5:36

.00

4.001

Day shift total

50165 gal

.05

0.001

18:00

18:50

4.001

Date / Time
7-4 Cont
19:00

Date / Time	Sample	ppm	oz/t	pH	CU-
19:00	Barren	.04	.001	11.67	1.3
	Feed	1.16	.034	11.83	0.7
	Stream	.87	.025	11.90	0.7
19:30	Discharge	.03	<.001		
20:00			<.001		
20:40		.02	<.001		
21:20		.03	<.001		
22:15			<.001		
23:15		.02	<.001		
24:00		.04	<.001		
:50		.04	.001		
2:00		.05	.001		
2:50		.02	<.001		
4:00		.06	.002		
4:40		.05	.001		
5:15		.03	<.001		
5:45		.06	.002		
7-5-89 6:30		.04	.001		
7:00			<.001		
7:30			<.001		
	FEED	1.10	.032		
	STREAM	0.80	.023	*	34 GPM
	BARREN	0.05	.001		
8:00	Discharge		<.001		



Date / Time	Sample	ppm	oz / t	pH	CN-
7-5-88	discharge	1.05	.001		
9:00			<.001		
9:30		.07	.007		
10:00		.06	.007		
10:30		.08	.007		
11:00		.00	<.001		
11:30		.00	<.001		
13:25		.02	<.001		
14:05		.03	.001		
14:40		.03	.001		
15:15		∅	<.001		
16:00		∅	<.001		
16:30		∅	<.001		
17:00		∅	<.001		
17:30		∅	<.001		
18:00			<.001		
18:30			<.001		
19:00	Barren	.03	<.001	11.27	1.4
"	Feed	1.05	.030	11.31	0.8
"	Stream	.73	.021	11.68	0.9
19:00	Discharge		<.001		
19:30	"		<.001		
20:10		.02	<.001		
20:50		.04	.001		
21:30		.03	<.001		
22:25		.02	<.001		

Date / Time	Sample Desc	ppm	oz / t	pH	CN-
75 Cont 23:15	Discharge	.02	<.001		
24:00		.05	.001		
24:50		.05	.001		
1:35		∅	<.001		
2:15		.04	.001		
3:00		.03	<.001		
3:45		.05	.001		
4:30			<.001		
5:15		.02	<.001		
5:45			<.001		
7.6.89					
6:25		0.30	.009		
6:35		0.04	.001		
7:05		∅	<.001		
7:25		∅	<.001		
8:00		∅	<.001		
8:45		∅	<.001		
4:30			<.001		
10:15			<.001		
11:00		.00	<.001		
11:30		∅	<.001		
12:07		∅	<.001		
12:35		∅	<.001		
13:25		∅	<.001		
14:05		∅	<.001		
14:35		∅	<.001		

Date/Time	Sample	ppm	oz / t	pH	CU-
15:00	Discharge	Ø	<.001		
15:40	↑	Ø	<.001		
16:10		Ø	<.001		
16:35		Ø	<.001		
17:30		Ø	<.001		
18:00			<.001		
18:30			<.001		
19:00			<.001		
"	Barren	Ø	2.001	11.29	1.2
"	Feed	.93	.027	11.35	0.9
"	Stream	.74	.021	11.85	0.8
19:30	Discharge		<.001		
19:30 20:00			<.001		
20:35		.04	.001		
21:10			<.001		
21:50			<.001		
22:30			<.001		
23:10			<.001		
24:00			<.001		
00:40			<.001		
1:30			<.001		
2:15		.03	<.001		
3:00			<.001		
2:45			<.001		
4:30		.02	<.001		
5:30			<.001		

Date / Time	Sample	ppm	oz / t	pH	CW
7-7-89	Discharge				
6:25	"	∅	<.001		
7:20	"	∅	<.001		
8:15	"	0.02	<.001		
9:00	"	0.01	<.001		
9:35	"	∅	<.001		
10:00	"	∅	<.001		
10:35	"	∅	<.001		
11:15	"	.02	<.001		
12:00	"	∅	<.001		
12:30	"	.01	<.001		
13:15	"	.04	<.001		
14:00	"	∅	<.001		
15:30	"	∅	<.001		
17:00	"	∅	<.001		
17:40	"	∅	<.001		
18:15	"	∅	<.001		
18:45	"	∅	<.001		
19:00	"	∅	<.001		
19:30	"	∅	<.001		
20:00	"	∅	<.001		
20:30	"	∅	<.001		
21:00	"	∅	<.001		
21:30	"	∅	<.001		
22:00	"	∅	<.001		
22:20	"	∅	<.001		

Date

Time

Sample

ppm

oz / t

pH

CN-

7-7 23:00

discharge

Ø

L.001

23:40

"

Ø

L.001

0:20

"

Ø

L.001

1:00

"

Ø

L.001

1:40

"

Ø

L.001

2:00

"

Ø

L.001

2:30

"

.03

L.001

3:00

"

Ø

L.001

4:15

"

.04

.001

"

Stream

1.11

.032

12.0

.8

"

FEED

.94

.027

11.7

.8

"

stream

Flow Rate

24.1

GPM

5:00

discharge

.05

.001

5:30

"

.02

L.001

6:07

"

Ø

L.001

6:40

"

Ø

L.001

7:20

"

Ø

L.001

8:00

"

Ø

L.001

8:35

"

Ø

L.001

9:00

"

Ø

L.001

9:35

"

Ø

L.001

10:10

"

Ø

L.001

11:00

"

.02

L.001

11:30

"

.00

L.001

12:00

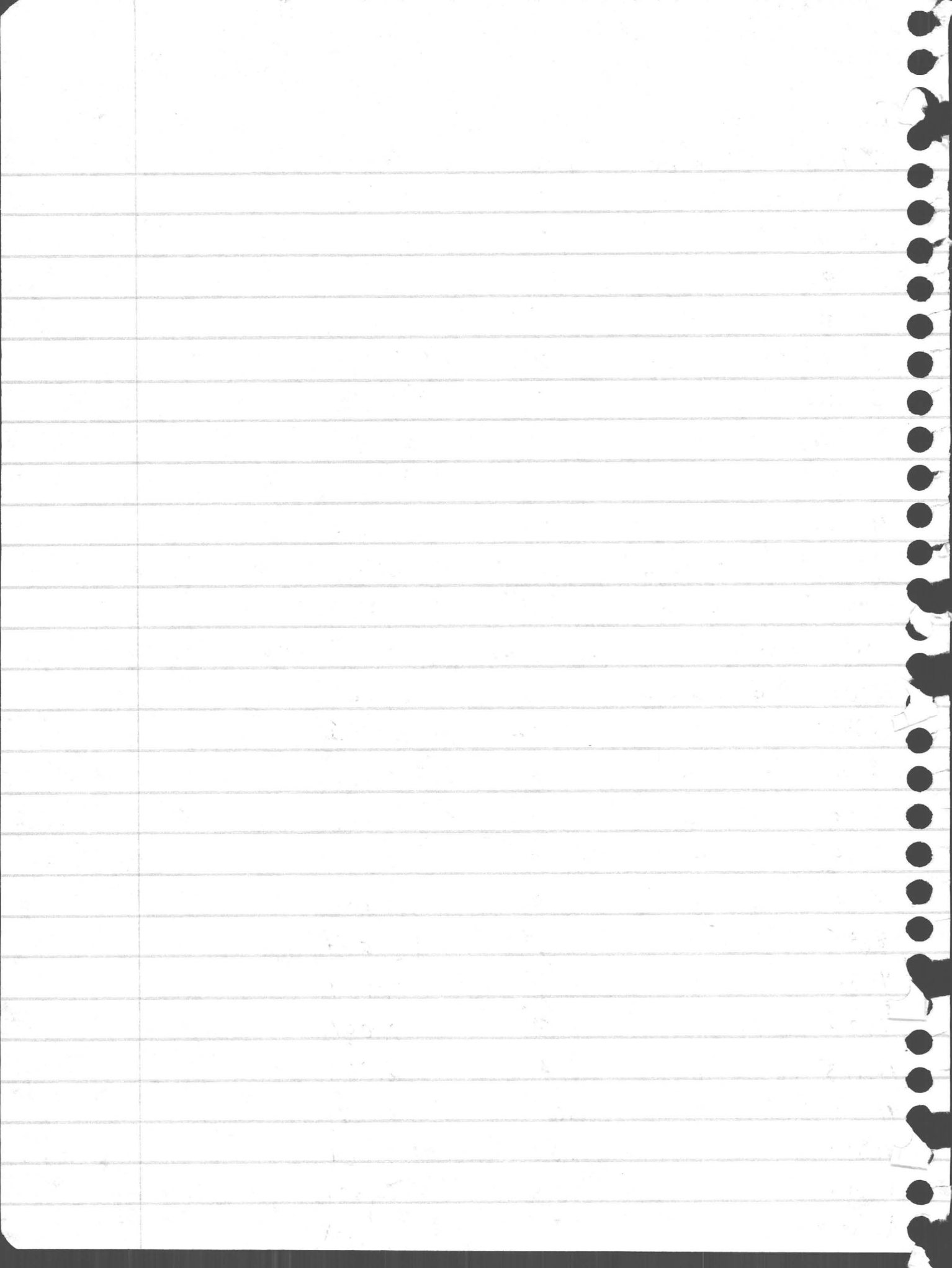
.03

L.001

12:30

.00

L.001



Date/
Time

7/8/89

1:00

1:30

Sample

ppm

oz/T

PH

cn-

discharge

.02

4.001

.00

4.001

part of - 0049

Mead

Assays

7/12/89

Ben Franklin
\$2.49



120 sheets/wide ruled
10½x8in/26.7x20.3cm

3 subject
notebook

05746 The Mead Corporation, Dayton, Ohio 45463



Date/Time	Sample	Au ppm	Au oz/t	CN ⁻	pH	Remarks
7/12 10:40	Discharge	.31	.009			
11:00	"	.00	<.001			
11:30	"	.00	<.001			
12:00	"	.00	<.001			
12:30	"	.00	<.001			
13:00	"	∅	<.001			
13:30	"	∅	<.001			
14:10	"	∅	<.001			
14:20	Return flow 20 GPM					
	STREAM	1.34	.039	0.7	11.6	
	FEED	1.20	.035	0.7	11.4	
	BARREN	.03	<.001	1.1	11.0	
	FRESH H ₂ O	4564800 GALLONS				
14:30	Discharge	∅	<.001			
15:00	"	∅	<.001			
15:30	"	∅	<.001			
16:00	"	∅	<.001			
17:00	"	∅	<.001			
17:30	"	∅	<.001			
18:00	"		<.001			
18:30	"	.02	<.001			
19:00	Return flow 20 GPM					
"	Barren	.02	<.001	1.1	11.42	
"	Feed	1.20	.035	0.7	11.62	
"	stream	1.28	.037	0.6	11.87	
"	Fresh H ₂ O	4568700 G.				

Date/Time	Sample	Au ppm	As $\mu\text{g/l}$	CN ⁻	pH	Remarks
7-12 / 19:00	Discharge	.02	<.001			
19:30	"	.01	<.001			
20:00	"	\emptyset	<.001			
20:30	"	.02	<.001			
21:15	"		<.001			
22:00	"		<.001			
22:30	"	.01	<.001			
23:00	"	.03	<.001			
23:30	"	\emptyset	<.001			
00:15	"	.01	<.001			
1:00	"	.07	.002			
1:35	"	\emptyset	<.001			
2:15	"	.02	<.001			
3:00	"	.02	<.001			
3:30	"		<.001			
4:00	"		<.001			
4:30	"		<.001			
5:00	"		<.001			
5:50	"	.01	<.001			
7/13 6:00	"	.30	.009			
6:30	"	\emptyset	<.001			
7:05	"	\emptyset	<.001			
7:45	"	\emptyset	<.001			
8:30	"	\emptyset	<.001			
9:00	"	\emptyset	<.001			
9:45	"	\emptyset	<.001			

Date/Time	Sample	Au ppm	Au oz/t	CN ⁻	pH	Remarks
7/13						
10:00	FEED	1.20	.035	0.8	11.5	
	STREAM	1.33	.039	0.8	11.6	
	BARREN	∅	<.001	1.1	11.3	
	FEED RETURN		20 GPM			
	FRESH WATER		4579700	GALLONS		
10:30	DISCHARGE	∅	<.001			
11:00	"	∅	<.001			
11:30	"	0	<.001			
12:30	"	∅	<.001			
13:15	"	∅	<.001			
14:10	"	∅	<.001			
14:40	"	.02	<.001			
15:10	"	.03	<.001			
15:40	"	.03	<.001			
16:10	"	.00	<.001			
16:40	"	.00	<.001			
17:10	"	.02	<.001			
18:00	"	.03	<.001			
18:30	"	.36	.009			
18:50	"	.06	.002			
19:00	Barren	∅	<.001	1.1	11.49	
"	FEED	1.14	.033	0.8	11.66	
"	stream	1.25	.036	0.7	11.85	
"	return rate		20 GPM			
"	fresh H ₂ O		4580300 Gal.			

Date/Time	Sample	Au PPM	Au O ₂ /t	CN-	pH	Remarks
7-13 / 19:00	Discharge	.08	.002			
19:15	"	.08	.002			
19:45	↓	.05	.001			
20:15		.02	<.001			
20:50		.05	.001			
21:30		.05	.001			
22:20		.07	.002			
23:15		<.001				
24:00		<.001				
00:45		<.001				
1:15		<.001				
2:00		.02	<.001			
2:30		.05	.001			
3:15		.02	<.001			
4:00		<.001				
4:30		<.001				
5:00		<.001				
5:30	↓	.03	<.001			
7/14 6:10	Discharge	∅	<.001			
7:00	"	∅	<.001			
	BARREN	0	<.001	1.1	11.3	
	FEED	1.20	.035	0.7	11.4	
	STREAM	1.23	.036	0.7	11.8	
	RETURN RATE		24 GPM			
	FRESH WATER		4519400			

Date / Time

7/11/8:00

9:00

9:55

10:40

11:20

12:00

13:00

14:00

14:30

15:10

16:00

16:30

17:30

17:45

18:15

18:45

19:00

19:25

19:45

20:10

20:30

21:00

21:30

22:00

DISCHARGE

"

"

"

"

"

"

"

"

"

"

"

"

"

"

"

"

"

"

"

"

"

"

"

"

"

"

"

Sample

Au ppm

Au O2/t

CU-

PH

Remarks

<.001

<.001

<.001

<.001

<.001

<.001

<.001

<.001

<.001

<.001

<.001

<.001

.008

.006

<.001

<.001

.001

<.001

1.2

.035

.036

.008

.005

.002

<.001

<.001

<.001

<.001

<.001

<.001

.03

<.001

<.001

<.001

<.001

<.001

<.001

<.001

<.001

.00

.008

.20

<.001

<.001

.04

<.001

<.001

1.21

1.24

.26

.16

.08

<.001

.01

<.001

.03

11.63

11.39

11.29

Return Flow =

24 GPM

Date/Time	Sample	Au PPM	Au oz/t	Cu-	pH	Remarks
7-14 / 22:30	Discharge	.04	.001			
23:00		.03	<.001			
23:30		.15	.004			
24:00		.10	<.001			
00:30		<.001				
1:30		<.001				
2:15		<.001				
3:00		<.001				
3:30		<.001				
4:15		<.001				
5:00		<.001				
5:30		<.001				
7/15 6:15		0.10	.003			
6:30			<.001			
	Barren	<.00	<.001	1.1	11.2	
	Feed	1.35	.039	.7	11.5	
	Stream	1.35	.039	.7	11.7	
	Return Flow	29 GPM				
	Fresh H ₂ O	4612300 GALLONS				
7:00	Discharge	∅	<.001			
7:30	"	∅	<.001			
8:10	"	∅	<.001			
9:00	"	∅	<.001			
9:30	"	∅	<.001			
10:15	"	∅	<.001			
11:00	"	∅	<.001			

Date/Time	Sample	Au PPM	Au oz/t	CN-	pH	Remarks
11:45	DISCHARGE	Ø	<.001			
12:30	"	.10	.003			
13:00	"	Ø	<.001			
13:50	"	.10	.003			
7/17/89	Return Flow	40.5 54.4	GPM			
10:40	Discharge	0.10	.003			
11:00	"	Ø	<.001			
11:30		.06	.002			
12:00		.01	<.001			
12:30			<.001			
1:00		.02	<.001			
13:30		.25	.007			
	Barren	.10	.003			
	Feed	1.15	.033			
	stream	1.52	.044			
14:00	Discharge	.03	<.001			
14:30	"	.06	.002			
15:00	"	.05	.001			
15:45	"	.03	.001			
16:20	"	.05	.002			
16:45	"	.05	.002			
17:20	"	.01	<.001			
17:40	"	Ø	<.001			
18:00	"	Ø	<.001			

Date/Time	Sample	Au PPM	Au O ₂ /t	CN-	pH	Remarks
7/17						
18:30	Discharge	0	<.001			
19:00	Barren	.06	.002	1.0	11.06	
"	Feed	1.37	.040	0.7	11.36	
"	Stream	1.44	.042	0.7	11.64	
"	Return flow	43 GPM				
"	Fresh H ₂ O	4670900	Ca.			
"	Discharge	0	<.001			
19:30	"	.04	.001			
19:50	"	0	<.001			
20:15	"	.02	<.001			
20:45	"	.01	<.001			
21:15	"	.02	<.001			
21:45	"	.06	.002			
22:15	"	.04	.001			
22:45	"	.05	.001			
23:15	"	0	<.001			
24:00	"	.02	<.001			
00:45	"		<.001			
1:30	"		<.001			
2:00	"		<.001			
2:30	"	.08	.002			
3:00	"	0	<.001			
3:30	"		<.001			
4:00	"	.03	<.001			
4:30	"	.02	<.001			
5:00	"	.02	<.001			

Date/Time	Sample	Au PPM	Au O ₂ /t	CN-	pH	Remarks
5:30	Discharge	.02	<.001			
7-18-89	"					
6:00	"	∅	<.001			
6:40	"	.04	.001			
6:45	Barren	∅	<.001	1.0	11.3	
	Feed	1.42	.041	0.7	11.5	
	Stream	1.44	.042	0.7	11.8	
	Return Rate	43 GPM				
	Fresh H ₂ O	4683700 GALLONS				
7:30	Discharge	∅	<.001			
8:10	"	∅	<.001			
8:45	"	∅	<.001			
9:25	"	∅	<.001			
10:20	"	.06	.002			
10:45	"	.03	.001			
11:15	"	∅	<.001			
11:50	"	.04	.001			
12:30	"	∅	<.001			
13:00	"	∅	<.001			
13:30	"	.00	<.001			
14:00	"	.02	<.001			
14:35	"	.00	<.001			
15:05	"	.00	<.001			
15:35	"	.02	<.001			
16:05	"	.00	<.001			

Date/Time	Sample	Au PPM	Au oz/t	CN-	pH	Remarks
7-18-89 18:35	Discharge	.00	4.001			
19:05	"	.00	4.001			
19:35		.14	.004			
19:45	"	.02	2.001			
18:00	"	.04	.001			
"	Barnen	.02	4.001	1.2	11.18	
"	Feed	1.46	.042	0.8	11.26	
"	Return	1.53	.044	0.7	11.58	
"	Return Flow	40.5	GPM			
"	Fresh H ₂ O ga.	469	7800			
18:30	Discharge	.06	.002			
19:00	"	0	2.001			
19:30	"		2.001			
20:15	"	.02	2.001			
20:45	"	.05	.001			
21:15		0	2.001			
21:45			2.001			
22:15			2.001			
22:50		.04	.001			
23:35		.06	.002			
24:00			2.001			
00:30			2.001			
1:00		.03	4.001			
1:30			2.001			
2:00			4.001			
2:30			2.001			

Date/Time	Sample	Au PPM	Au O ₂ / t	CN-	pH	Remarks
7-18 / 3:00	Discharge	∅	<.001			
3:30	"		<.001			
4:00	"	1.03	<.001			
4:30	"		<.001			
5:00	"		<.001			
5:30	"		<.001			
7-19-89	"					
6:00	"	.02	<.001			
6:35	"		<.001			
7:00	"		<.001			
	Barren		<.001			
	Feed	1.46	.042			
	Stream	1.55	.045			
	Return flow	40	GPM			
	Fresh H ₂ O	4718200	GALLONS			
8:00	Discharge	.04	.001			
8:25	"	∅	<.001			
9:05	"	.02	.001			
9:40	"	∅	<.001			
10:35	"	.02	<.001			
11:00	"	∅	<.001			
11:30	"	∅	<.001			
12:00	"	∅	<.001			
12:35	"	∅	<.001			
13:15	"	∅	<.001			

Date/Time	Sample	Au PPM	Au O ₂ /t	CN-	pH	Remarks
13:45	Discharge	.00	4.001			
14:15		.04	.001			
15:15		.06	.002			
15:40		.02	4.001			
16:15		.00	4.001			
16:40		.09	.003			
16:45		.00	4.001			
17:20		.00	4.001			
17:50		.04	.001			
18:10		.03	<.001			
18:30	Barren	0	<.001	1.2	11.20	
"	Feed	1.44	.042	0.7	11.49	
"	Stream	1.43	.041	0.7	11.67	
"	Return rate	40.5	GPM			
"	Fresh H ₂ O ga.	4728900				
18:40	Discharge	.04	.001			
19:00	"	.10	.003			
19:25	"	.04	.001			
20:00		.02	4.001			
20:30		.05	.001			
21:00		0	<.001			
21:30		.02	4.001			
22:00		.03	<.001			
22:45		0	<.001			
23:35		.02	<.001			
24:00		.	<.001			

Date/Time

Sample

Au PPM

Au O₂/t

CN-

pH

Remarks

7-19

00:45

Discharge

∅

<.001

1:30

<.001

2:00

<.001

2:45

.08

.002

3:30

<.001

4:00

.03

<.001

4:45

.02

<.001

5:15

∅

<.001

7/20/89

6:00

.05

<.001

~~1.2~~ 11.3

"

BARREN SOLN.

∅

<.001

1.2

11.3

"

FEED

1.55

.045

0.7

11.5

"

RETURN RATE

40 GALLONS/MIN

"

STREAM

1.55

.045

0.7

11.7

"

FRESH H₂O

474 2600

GALLONS

6:45

DISCHARGE

.03

.001

7:30

"

∅

<.001

8:20

"

∅

<.001

9:15

"

∅

<.001

10:00

"

∅

<.001

10:30

"

∅

<.001

11:00

"

.01

<.001

11:35

"

.03

<.001

12:00

"

.02

<.001

12:30

"

.00

<.001

13:00

"

∅

<.001

Date/Time	Sample	Au PPM	Au O ₂ /t	CU-	pH	Remarks	
13:30	Discharge	Ø	<.001				
14:10	"	.02	<.001				
15:00	"	.00	<.001				
15:30	"	.00	<.001				
16:00	"	.00	<.001				
16:30	"	.03	<.001				
17:00	"	.02	<.001				
17:30	"	.00	<.001				
18:00	"	.01	<.001				
18:30	"	.08	.002				
"	Barren	Ø	<.001	1.1	11.34		
"	Feed	1.56	.045	0.6	11.58		
"	Stream	1.45	.042	0.7	11.79		
"	Return Flow	37 GPM					
"	Fresh H ₂ O ga.	4762700					
19:00	Discharge	.03	<.001				
19:30	"	.10	.003				
19:50	"	.05	.001				
20:30		.10	.003				
20:45		.03	<.001				
21:15		Ø	<.001				
21:50		.06	.002				
22:15		.05	.001				
22:45		Ø	<.001				

Date/Time Sample Au PPM Au O₂/t CW- pH Remarks

11:10

7/21

6:15

Discharge

Ø

<.001

6:45

"

.02

<.001

7:15

"

Ø

<.001

Barren

.02

<.001

1.1

FEED

1.46

.042

0.7

Stream

1.46

.041

0.7

Return flow

43 GPM

Fresh H₂O

- 4785500

7:45

Discharge

Ø

<.001

8:15

"

.03

<.001

8:40

"

.00

<.001

9:15

"

.00

<.001

9:35

"

.02

<.001

10:05

"

.00

<.001

10:35

"

.02

<.001

11:05

"

.03

<.001

11:35

"

.00

<.001

12:05

"

.00

<.001

12:40

"

.00

<.001

1:10

"

.00

<.001

1:40

"

.00

<.001

2:00

"

.00

<.001

Date/Time	Sample	AU PPM	AU O ₂ /lt	CW	pH	Remarks
7-24 0600	Stream	1.23	.036			
11:30	Discharge	1.20				
11:35 +2.00	"	1.19				
11:40	"	.80	.020			
12:00	"	.04	.001			
	Barren	Ø	<.001	0.6	9.4	
	Feed	1.20	.036			
	Return flow	34 GPM				
	Stream	1.45	.042			
12:30	Discharge		<.001			
12:45	"	.00	<.001			
1:10	"	.00	<.001			
1:55	"	.00	<.001			
14:20	"	Ø	<.001			
14:43	"	.00	<.001			
15:15	"	.00	<.001			
16:05	"	Ø	<.001			
16:30	"	.07	.002			
17:00	"	.00	<.001			
17:30	"	.00	<.001			
18:00	"	.00	<.001			
18:30	"	.06	.002			
19:00			<.001			
19:30			<.001			
20:00			<.001			

Date/Time
7-24 / 20:00

Date/Time	Sample	Au ppm	Au oz/t	Cu-	pH	Remarks
7-24 / 20:00	Barren	0	<.001	0.7	10.0	
"	Feed	1.34	.039	0.6	11.56	
"	Return	1.33	.039	0.6	11.75	
"	Return Flow	29 GPM				
"	Fresh H ₂ O	4936500 ga.				
20:30	Discharge	0	<.001			
21:00	"	.03	<.001			
21:30	"	.10	.003			
21:50	"	.07	.002			
22:30	"	0	<.001			
23:15	"	.05	.001			
23:50	"	.05	.001			
00:30	"	0	<.001			
1:00	"		<.001			
1:30	"	.01	<.001			
2:00	"	.05	.001			21:51
2:45	"	.04	.001			00:51
3:30	"	.09	.003			
4:00	"	0.2	.001			
4:30	"	.05	.001			
5:00	"	.10	.003			00:51
5:30	"	.14	.004			12:00
5:45	"	.08	.002			70
7/25 6:00	"	.17	.005			
6:30	"	.02	<.001			

Date/Time	Sample	AU PPM	AU OZ/T	CU-	pH	Remarks
7/25 7:00	Barren	∅	<.001	1.0	10.9	
	Feed	1.40	.040	.6	11.6	
	Stream	1.33	.039	.6	11.7	
	Return flow	29 GALLONS				
	Discharge	∅	<.001			
7:30	"	.11	.003			
7:45	"	.03	.001			
8:05	"	∅	<.001			
8:30	"	.02	<.001			
9:00	"	∅	<.001			
9:30	"	.10	.003			
10:20	"	.12	.003			
10:45	"	.04	.001			
11:20	"	∅	<.001			
12:05	"	.30	.009			
12:25	"	.07	.002			
13:00	"	.04	.001			
13:30	"	∅	<.001			
14:00	"	.03	<.001			
14:30	"	.03	<.001			
15:00	"	.03	<.001			
15:30	"	∅	<.001			
16:00	"	.03	<.001			
16:30	"	.01	<.001			
17:00	"	.00	<.001			
17:30	"	.00	<.001			

Date/Time	Sample	Au ppm	Au O2/H	CN -	PH	Remarks
7/25/18:00	Discharge	0	<.001			
18:30	"		<.001			
19:00	Barren	.02	<.001	1.1	11.22	
"	Feed	1.27	.037	0.6	11.58	
"	Stream	1.27	.037	0.6	11.74	
"	Return rate	29.0 GPM				
"	Fresh H ₂ O Ga.	4945300				
"	Discharge	.02	<.001			
19:30	"	.05	.001			
20:00		.03	<.001			
20:40		.10	.003			
21:00		0	<.001			
21:30			<.001			
22:00			<.001			
22:30		.02	<.001			
23:00		0	<.001			
23:45		0	<.001			
00:30		0	<.001			
1:10		0	<.001			
1:45		.05	.001			
2:30		0	<.001			
3:15		0	<.001			
3:45		0	<.001			
4:30		0	<.001			
5:00		.03	<.001			
5:30		0	<.001			

Date/Time	Sample	Au ppm	Au oz/t	CN- ph	Remarks
7/25 6:00	Discharge	∅	<.001		
6:45	"	∅	<.001		
7:00	BARREN	∅	<.001		
	FEED	1.34	.038		
	STREAM	1.34	.038		
	RETURN FLOW	+ 30 GALLONS / MIN			
	FRESH H ₂ O	4959900 GALLONS			
7:30	Discharge	∅	<.001		
8:00	"	∅	<.001		
8:40	"	.02	<.001		
9:10	"	∅	<.001		
10:00	"	∅	<.001		
10:30	"	∅	<.001		
11:00	"	∅	<.001		
11:30	"	∅	<.001		
12:00	"	∅	<.001		
12:50	"	∅	<.001		
13:05	"	∅	<.001		
13:40	"	∅	<.001		
14:00	"	∅	<.001		
14:45	"	∅	<.001		
15:15	"	∅	<.001		
15:45	"	∅	<.001		
16:15	"	∅	<.001		
16:45	"	∅	<.001		

Date/Time	Sample	Au PPM	Au. Oz/t	CN-	pH	Remarks
17:15	"	∅	2.001			
17:45	"	.02	2.001			
18:15	Discharge	∅	2.001			
	Barren	.02	2.001	1.1	11.48	
	Feed	1.30	.038	0.6	11.71	
	Stream	1.27	.037	0.7	11.86	
	Return rate	@ 30 GPM				
	Fresh H ₂ O ga	4976000				
19:00	Discharge	∅	2.001			
19:30	"	.03	2.001			
20:00		.02	2.001			
20:30		∅	2.001			
21:00		∅	2.001			
21:30		.03	2.001			
22:00		∅	2.001			
22:30		∅	2.001			
23:00		.05	.001			
23:30		.03	2.001			
24:00		∅	2.001			
00:30		.03	2.001			
1:00		∅	2.001			
1:30		∅	2.001			
2:00		.02	2.001			
2:30		.10	.003			
3:00		.03	2.001			
3:30		.05	.001			

Date / Time	Sample	Av ppm	Av ppt	CN-	pH	Remarks
7/26 4:00	Discharge	.06	.002			
4:30	"	.07	.002			
5:00	"	.05	.001			
5:30	"	.01	2.001			
7/27 6:00	"	.02	<.001			
6:35	"	∅	<.001			
7:00	Barren	.02	<.001			
"	Feed	1.32	.038			
"	stream	1.20	.035			
"	Return flow	~ 30+ Gallons per minute				
"	Fresh H ₂ O	4993100 Gallons				
7:16	Discharge	∅	<.001			
7:40	"	∅	<.001			
8:20	"	∅	<.001			
8:50	"	∅	<.001			
9:30	"	∅	<.001			
10:00	"	∅	<.001			
10:30	"	∅	2.001			
11:00	"	∅	2.001			
11:30	"	∅	2.001			
12:00	"	∅	2.001			
12:30	"	.02	.002			
13:00	"	∅	2.001			
13:30	"	∅	2.001			
14:00	"	∅	2.001			

Date

7/27

Time

Sample

Av ppm

Av out

CN- pH

Remarks

14:30

"

.03

2.001

15:00

"

.11

.003

15:15

"

.03

2.001

15:45

"

.00

2.001

16:15

"

.02

2.001

17:00

"

.00

2.001

17:30

"

.00

2.001

18:00

"

0

2.001

"

Barren

0

2.001

0.9

11.41

"

Feed

1.25

.036

0.5

11.70

"

Stream

1.15

.033

0.6

11.93

"

return flow

30 +

GPM

"

Fresh H₂O Ga

500 2000

18:30

Discharge

.01

2.001

19:00

"

.03

2.001

19:30

"

0

2.001

20:00

.01

2.001

20:30

.02

2.001

21:00

.03

2.001

21:30

0

2.001

22:15

0

2.001

23:00

0

2.001

23:30

0

2.001

24:00

.03

2.001

00:30

0

2.001

1:15

.03

2.001

Date/Time	Sample	Av PPM	Av O ₂ /%	CN-	pH	Remarks
7/27 2:00	Discharge	Ø	<.001			
2:30	"	Ø	<.001			
3:00	"	Ø	<.001			
3:30	"	.04	.001			
4:00	"	.01	<.001			
4:30	"	.07	.002			
5:00	"	.08	.002			
5:30	"	.05	.001			
7/28 6:10	"	Ø	<.001			
6:55	"	.04	.001			
7:30	"	.02	<.001			
	BARREN	Ø	<.001	0.9	11.3	
	FEEO	1.30	.038	0.6		
	STREAM	1.24	.036	0.6		
	RETURN FLOW	35 GPM				
	FRESH H ₂ O	5012900	GALLONS			
8:05	Discharge	.10	.003			
8:40	"	.10	.003			
9:10	"	.00	<.001			
9:40	"	.03	<.001			
10:10	"	.07	.002			
10:40	"	.03	<.001			
11:10	"	.03	<.001			
11:40	"	.05	.001			
12:10	"	.03	<.001			

Date Time	Sample	Au PPM	Au oz/t	CN-	pH	Remarks
12:40	"	.02	2.001			
1:10	"	.07	.002			
1:40	"	.08	.002			
2:00	"	.08	.002			
2:40	"	.04	2.001			
3:10	"	.13	.004			
3:15	"	.03	2.001			
3:20	"	.20	.006			
3:25	"	.02	2.001			
3:30	"	.06	.002			
3:55	"	.06	.002			
4:10	"	.08	.002			
4:20	"	.02	2.001			
4:50	"	.09	.003			
5:00	"	.03	2.001			
5:15	"	.07	.002			
5:35	"	.03	2.001			
5:45	"	.08	.002			
18:00	"	.14	.004			
18:15	"	.11	.003			
18:30	"	.07	.002			
18:40	"	.09	.003			
18:55	"	.08	.002			
19:15	"	.10	.003			
19:30	"	.10	.003			

Date	Time	Sample	PPM	A ₀ O ₂ /t	CN-	pH	Remarks
7/28	19:00	Barren	.03	6.001	1.0	11.38	
"	"	Feed	1.34	.039	0.6	11.48	
"	"	Stream	1.20	.035	0.6	11.78	
"	"	Return Flow	300 ppm				
	19:45	Discharge	.29	.009			
	20:00	"	.13	.004			
	20:15	"	.11	.003			
	20:30	"	.11	.003			
	20:45	"	.15	.004			
	21:00	"	.14	.004			
	21:15	"	.17	.005	2.2		
	21:30	"	.12	.003			
	21:45	"	.09	.003			
	22:00	"	.08	.002			
	22:15	"	.12	.003	1.9		
	22:30	"	.14	.004			
	22:45	"	.07	.002	1.5		
	23:00	"	.03	2.001			
	23:15	"	.10	.003			
	23:30	"	.05	.001			
	23:55	"	.07	.002			
	00:15	"	.07	.002			
	00:30	"	.06	.002			
	1:00	"	.11	.003			
	1:15	"	.08	.002			

Date	Time	Sample	ppm	A _v	Oz/l	CN-	pH	Remarks
7/28	1:30	Discharge	.08		.002			
	2:00	"	.07		.002			
	2:30		.09		.003			
	3:00		.08		.002			
	3:30		.12		.003			
	4:00		.09		.003			
	4:30		.08		.002			
	5:00		.09		.003			
	5:30		.09		.003			
7/29	6:00		.07		.002			
	6:30	"	.10		.001			
	7:00	"	.07		.002			
		Return Flow	2.9 gpm					
		Barren	.04		.001	.9	11.14	
		Feed	1.29		.037	.5	11.39	
		Stream	1.15		.033	.5	11.63	
	7:30		.08		.002			
	8:00		.04		.001			
	8:15		.07		.002			
	8:30		.05		.001			
	8:55		.06		.002			
	9:25		.04		.001			
	9:50		.04		.001			

Date Time	Sample	PPM	AU O2/H	CN-	pH	Remarks
10:10	"	.08	.002			
10:35	"	.04	.001			
11:05	"	.05	.001			
11:35	"	.07	.002			
12:00	"	.07	.002			
12:30	"	.11	.003			
12:40	"	.06	.002			
1:10	"	.12	.003			
1:15	"	.08	.002			
1:25	"	.14	.004			
1:40	"	.13	.004			
1:50	"	.14	.004			
7/31						
0800	BARDEN	0.0	1.001	.9	11.02	
	STREAM	.96	.028	.4	11.44	19.7 gpm
8/1/89						
13:00	DISCHARGE	.03	1.001			
	STREAM	1.20	.035			
	FEED	1.30	.038	.5	10.95	
	BARREN	.04	.001	.8	11.11	
	Return flow	20 GPM		.5	11.34	
13:30	"	.04	.001			
14:00	"	.00	1.001			
14:30	"	.00	1.001			

Date Time	Sample	PPM	AU oz/t	CN-	pH	Remarks
15:00	Discharge	.01	2.001			
15:30	"	.00	2.001			
16:00	"	.05	.001			
16:10	"	.00	2.001			
16:30	"	.02	2.001			
17:00	"	.00	2.001			
17:30	"	.00	2.001			
17:50	"	.02	2.001			
18:00	"	.03	2.001			
18:45	"	∅	2.001			
19:00	Barren	.05	.001	1.0	11.22	
	Feed	1.25	.036	0.5		
	Stream	1.10	.032			
	Return Flow	16 gpm				
19:15	Discharge	.02	2.001			
19:45	"	∅	2.001			
8/2/89 9:30	"	∅	2.001			
10:00	"	∅ .06	2.001			
10:20	"	∅	2.001			
10:45	"	∅	2.001			
11:15	"	∅	2.001			
12:15	"	.04	.001			
12:25	"	.05	.001			
1:00	"	.00	2.001			
7:30	"	.00	2.001			

Date	Time	Sample	PPM	AU	oz/t	CN-	pH	Remarks
8/2	2:00	"	.01		2.001			
	2:30	"	.00		2.001			
	3:00	"	.02		2.001			
	3:30	"	.02		2.001			
	4:00	"	.00		2.001			
	4:30	"	.02		2.001			
	5:00	"	.00		2.001			
	5:30	"	.03		2.001			
	18:00	"	⊖		2.001			
	18:30	"	⊖		2.001			
	19:00	Barren	.05		.001	1.0	11.18	
	"	Feed	1.17		.034	0.5	11.42	
	"	Stream	.93		.027	0.6	11.63	
	"	Return Flow	approx 17-18 GPM					
	"	Discharge	⊖		2.001			
	19:30	"	.04		.001			
	20:00	"	.02		2.001			
	20:30	"	⊖		2.001			
	21:00	"	⊖		2.001			
	21:30	"	.05		.001			
	22:00	"	⊖		2.001			
	22:30	"	⊖		2.001			
	23:00	"	.03		2.001			
	23:30	"	.03		2.001			
	24:00	"	⊖		2.001			
	00:30	"	.03		2.001			

Date	Time	Sample	PPM ^{AU}	O ₂ /l	CN-	pH	Remarks
8/2	1:00	Discharge	.06	.002			
	1:30	"	.05	.001			
	2:00	"	∅	<.001			
	2:30	"	∅	<.001			
	3:00	"	.05	.001			
	3:30	"	.06	.002			
	4:00	"	∅	<.001			
	4:30	"	∅	<.001			
	5:00	"	.04	.001			
	5:30	"	∅	<.001			
8/3/	6:00	Discharge	.02	<.001			
	6:40	"	∅	<.001			
	7:10	"	.03	<.001			
	7:40	"	∅	<.001			
	8:15	"	∅	<.001			
	8:45	"	.02	<.001			
	9:00	BARREN					
		FEED	1.00	.029			
		STREAM	.98	.028			
		RETURN FLOW	16 GPM				
		FRESH H ₂ O	50 13300 GALLONS				
	9:20	Discharge	∅	<.001			
	10:00	"	.02	<.001			
	10:35	"	.01	<.001			
	11:05	"	∅	<.001			

Date	Time	Sample	PPM Au	O ₂ /l	CN-	pH	Remarks	
8/3	11:40	Discharge	.03	<.001				
	12:35	"	∅	<.001				
	13:10	"	∅	<.001				
	13:40	"	∅	<.001				
	14:20	"	∅	<.001				
	15:00	"	∅	<.001				
	15:30	"	∅	<.001				
	16:00	"	∅	<.001				
	16:30	"	∅	<.001				
	17:00	"	∅	<.001				
	17:30	"	∅	<.001				
	18:00		.05	.001				
	18:30		∅	<.001				
	19:00	Barren	.03	<.001	1.1	11.14		
	"	Feed	1.15	.033	0.6	11.44		
	"	Stream	.98	.028	0.6	11.73		
	"	Return rate	18 GPM					
	"	Discharge	.02	<.001				
	19:30	"	.01	<.001				
	20:00	"	.02	<.001				
	20:30	"	.06	.002				
	21:00	"	.07	.002				
	21:30	"	∅	<.001				
	22:00	"	.05	.001				
	22:30	"	∅	<.001				
	23:00	"	.01	<.001				

Date

8/3 Time

23:30

Sample
Discharge

PPM

Au

GZ / T

CN

PH

Remarks

.05

.001

24:00

.05

.001

00:30

.03

<.001

1:00

0

<.001

1:30

0

<.001

2:00

.10

.003

2:30

.02

<.001

3:00

.06

.002

3:30

.03

<.001

4:00

.04

.001

4:30

0

<.001

5:00

.03

<.001

5:30

0

<.001

8/4 6:10

Discharge

0

<.001

Feed

1.16

.034

Stream

.94

.027

06:30

Discharge

.03

<.001

7:00

"

.01

<.001

7:30

"

.01

<.001

8:10

"

0

<.001

8:50

"

0

<.001

9:15

"

.05

.001

9:55

"

.02

<.001

10:20

"

.00

<.001

11:00

"

.00

<.001

Date	Time	Sample	PPM	A _o O ₂ (T)	CN	PH	Remarks
	11:30	Discharge	∅	2.001			
	12:00	"	∅	2.001			
	12:30	"	∅	2.001			
	1:00	"	.03	2.001			
	1:30	"	.00	2.001			
	2:00	"	.00	2.001			
	2:30	"	.03	2.001			
	3:00	"	.05	2.001			
	3:30	"	.02	2.001			
	4:00	"	.00	2.001			
	4:30	"	.07	2.002			
	5:00	"	.00	2.001			
	5:30	"	.02	2.001			
	18:00		∅	2.001			
	18:30		∅	2.001			
	19:00	Barren	.02	2.001	1.0	11.20	
	"	Feed	1.19	.035	0.5	11.36	
	"	Return	.97	.028	0.6		
	"	Return flow	20	GPM			
	"	Discharge	.04	.001			
	19:30	"	.03	2.001			
	20:00		∅	2.001			
	20:30		∅	2.001			
	21:00		.07	.002			
	21:30		.03	2.001			
	22:00		.04	.001			

Date

Time

Sample
Discharge

AU

PPM

O₂/t

CN-

pH

Remarks

8-4
22:30

23:00

23:30

24:00

00:30

1:00

1:30

2:00

2:30

3:00

3:30

4:00

4:30

5:00

5:30

8-5
6:00

6:30

7:00

7:30

8:00

8:30

9:00

9:30

10:00

11:00

11:30

"

"

"

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"

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"

"

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"

"

.03

.04

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~~0~~

.02

~~0~~

.05

.03

~~0~~

.02

~~0~~

.03

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~~0~~

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~~0~~

.01

.02

~~0~~

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~~0~~

~~0~~

.02

.00

<.001

.001

<.001

<.001

<.001

<.001

.001

<.001

<.001

<.001

<.001

<.001

<.001

<.001

<.001

1.001

1.001

1.001

1.001

1.001

1.001

1.001

1.001

1.001

1.001

1.001

Date Time	Sample	PPM	Au oz/t	CO-	pH	Remarks
12:00	"	.00	2.001			
12:30	"	.05	.001			
1:00	"	.00	2.001			
1:30	"	.03	2.001			
2:00	"	∅	2.001			
2:30	"	∅	2.001			
2:45	"	∅	2.001			
3:00	"	∅	2.001			
8/5 9:30	"	.33	.010			
9:45	"	.30	.000			
	Stream	.85	.025	.7	11.5	
	Feed	.95	.028	.6	11.2	
	Barron	∅	<.001	.8	11.1	
10:15	"	.03	2.001			
10:45	"	.02	2.001			
11:00	"	.00	2.001			
11:30	"	.00	2.001			
12:00	"	.00	2.001			
12:30	"	.∅2	2.001			
1:00	"	.03	2.001			
1:30	"	.00	2.001			
14:10	"	∅	<.001			
14:40	"	∅	<.001			
15:20	"	∅	2.001			

Date 8-7
Time

Sample	PPM ^{Au}	O ₂ /l	CN-	pH	Remarks
Discharge	100	2.001			
"	∅	2.001			
"	.03	2.001			
"	.00	2.001			
"	.60	2.001			
"	∅	<.001			
Barren	∅	2.001	1.0	11.05	
Feed	.97	.028	0.6	11.27	
Stream	180	.023	0.8	11.53	
Return rate	30 gpm				
Fresh H ₂ O	5013300 Gal.				
Discharge	∅	2.001			
"	.02	2.001			
"	.06	.002			
"	.02	2.001			
"	∅	<.001			
"	∅	2.001			
"	∅	2.001			
"	.03	2.001			
"	∅	2.001			
"	∅	2.001			
"	.01	2.001			
"	∅	2.001			
"	∅	2.001			
"	∅	2.001			
"	.02	<.001			

Date/Time	Sample	PPM Au	O ₂ /l	CN-	pH	Remarks
8-7 2:30	Discharge	0	<.001			
3:00	"	0	<.001			
3:30	"	0	<.001			
4:00	"	0	<.001			
4:30	"	.06	.002			
5:00	"	.02	<.001			
5:30	"	0	<.001			
6:15	"	0	<.001			
6:45	"	0	<.001			
7:22	"	0	<.001			
8:00	"	0	<.001			
8:30	"	0	<.001			
9:00	"	.02	<.001			
9:35	"	0	<.001			
10:00	"	0	<.001			
	Feed	.96	.028			
	stream	.82	.024			
	barren	0	<.001			
	return rate	30	GPM			
10:35	discharge	0	<.001			
11:00	"	0	<.001			
11:30	"	0	<.001			
12:00	"	.04	.001			
12:50	"	0	<.001			
13:30	"	0	<.001			

Date Time	Sample	PPM ^{Au}	Oz/t	CN-	pH	Remarks	
14:10	Discharge	∅	2.001				
14:40	"	∅	2.001				
15:10	"	∅	2.001				
15:40	"	∅	2.001				
16:10	"	∅	2.001				
16:30	"	∅	2.001				
17:00	"	∅	2.001				
17:50	"	∅	2.001				
18:30	Barren	∅	2.001	0.9	11.44		
"	Feed	.98	.028	0.7	11.53		
"	Stream	.89	.026	0.7	11.71		
"	Return rate	24 Gpm					
"	Ash H ₂ O	5022000 gal					
18:40	Discharge	∅	2.001				
19:15	"	∅	2.001				
19:45	"	.05	.001				
20:15	"	∅	2.001				
20:45	"	.04	.001				
21:15	"	∅	2.001				
21:45	"	∅	2.001				
22:15	"	∅	2.001				
22:45	"	.02	2.001				
23:15	"	.02	2.001				
23:45	"	∅	2.001				
00:15	"	.03	2.001				
00:45	"	.05	.001				

Date	Time	Sample	PPM Au	Oz/t	CN-	pH	Remarks
8-8	1:15	Discharge	0	<.001			
	1:45	"	0	<.001			
	2:15	"	.02	<.001			
	2:45	"	0	<.001			
	3:15	"	0	<.001			
	3:45	"	0	<.001			
	4:15	"	.02	<.001			
	4:45	"	0	<.001			
	5:15	"	0	<.001			
	5:45	"	.01	<.001			
8/9	6:20	"	.01	<.001			
	6:50	Barren	0	<.001	1.0	11.4	
		Feed	1.00	.029	0.7	11.5	
		stream	0.91	.028	0.7	11.65	
		Return flow	26 RPM				
		Fresh H ₂ O	5033900				
	7:00	Discharge	0	<.001			
	7:35	"	.02	<.001			
	8:05	"	0	<.001			
	9:00	"	.01	<.001			
		Section 1	1.24	.036			
		" 2	1.07	.031			
		" 3	0.66	.019			
		" 4	1.27	.037			

Date

Time
8/9 10:00
DinnerSample
DischargePPM ^{As}

oz/t

CN-

pH

10:50

"

∅

L.001

12:00

"

∅

L.001

12:30

"

.00

L.001

1:00

"

∅

L.001

1:15

"

∅

L.001

1:30

"

∅

L.001

2:00

"

.02

L.001

2:30

"

∅

L.001

3:00

"

∅

L.001

3:30

"

∅

L.001

4:00

"

∅

L.001

4:30

"

∅

L.001

5:00

"

.07

.002

5:30

"

.00

L.001

18:00

"

∅

L.001

18:45

"

∅

L.001

19:00

Barren

∅

L.001

1.0

11.1

Feed

.95

.028

0.7

11.5

Stream

1.02

.030

0.7

11.7

Return Flow

20 GPM

Fresh H₂O

5045600 Gal.

19:30

Discharge

.03

L.001

20:00

"

∅

L.001

20:35

"

∅

L.001

Date	Time	Sample	PPM	Au	O ₂ lt	°C N-	pH	Remarks
8-9	21:15	Discharge	0		<.001			
	22:00	"	0		<.001			
	22:30	"	.02		<.001			
	23:00	"	0		<.001			
	23:30	"	.04		.001			
	24:00	"	0		<.001			
	00:45	"	.03		<.001			
	1:30	"	.02		<.001			
	2:15	"	0		<.001			
	2:45	"	0		<.001			
	3:20	"	0		<.001			
	4:00	"	.06		.002			
	4:30	"	0		<.001			
	5:00	"	.02		<.001			
	5:30	"	0		<.001			
8-10	6:10	"	0		<.001			
		Barren	0		<.002	1.1	11.2	
		Feed	0.95		.028	0.7	11.5	
		Stream	1.0		.029	0.7	11.7	
		Return rate	25 GPM					
		Fresh H ₂ O	50.5 GPM					
	7:00	Discharge	0		<.001			
	7:45	"	0		<.001			
	8:45	"	0		<.001			
	9:35	"	0		<.001			

Date 8/10	Time	Sample	PPM As	Oil +	CO ₂ -	pH	Remarks	
	10:15	Discharge	∅	<.001				
	10:50	"	∅	<.001				
	11:25	"	.02	<.001				
	11:50	"	∅	<.001				
	12:25	"	.04	<.001				
	12:50	"	∅	<.001				
	13:25	"	∅	<.001				
	13:50	"	∅	<.001				
	14:25	"	∅	<.001				
	14:50	"	.02	<.001				
	15:25	"	∅	<.001				
	15:50	"	∅	<.001				
	16:25	"	∅	<.001				
	16:50	"	∅	<.001				
	17:25	"	0	<.001				
	18:00	"	∅	<.001				
	"	Barren	∅	<.001	1.1	11.30		
	"	Peed	.97	.028	0.7	11.62		
	"	Stream	1.02	.030	0.6	11.75		
	"	Return Flow	24 GPM					
	"	Fresh H ₂ O	5071200 Ga.					
	18:30	Discharge	.05	.001				
	19:05	"	.05	.001				
	19:30	"	.03	<.001				
	20:00	"	.04	.001				
	20:45	"	.08	.002				

4/14/89

sample
Discharge

Au ppm Au oz/t CN⁻ pH

9:10	"	.25	.007		
9:20	"	.11	.003		
9:40	"	.04	.001		
10:00	"	.10	.003		
10:10	"	.10	.003		
10:30	"	∅	<.001		
11:00	"	∅	<.001		
11:30	"	.26	.008		
11:45	"	.06	.002		
12:15	"	∅	<.001		
12:45	"	∅	<.001		
	Stream	1.20	.035		
	Feed	1.10	.032		
	Return flow	26 GPM			
	Fresh H ₂ O	5236300		GALLONS	
13:15	"	∅	<.001		
13:45	"	∅	<.001		
14:15	"	∅	<.001		
14:45	"	∅	<.001		
15:15	"	∅	<.001		
15:45	"	.03	<.001		
16:15	"	∅	<.001		
16:45	"	∅	<.001		
17:15	"	∅	<.001		
17:45	"	.02	<.001		

Date

Time

8-14

18:00

"

"

"

"

18:15

19:00

19:30

20:00

20:30

21:00

21:30

22:15

22:45

23:15

23:45

00:30

1:00

1:30

2:00

2:30

3:00

3:45

4:30

5:00

5:30

Sample

Barren

Feed

Stream

Return rate

Fresh H₂O

Discharge

"

"

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"

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"

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"

"

"

"

"

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"

"

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"

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A₀

APM

O₂/H

CN-

pH

0

2.001

0.8

10.57

1.11

.032

0.6

11.24

1.09

.032

0.6

11.43

20

apm

5244800

gal.

0

2.001

.01

2.001

.04

.001

.06

.002

.03

2.001

0

<.001

0

<.001

.03

<.001

.04

.001

.05

.001

.03

<.001

0

<.001

.02

<.001

.04

.001

.06

.002

.05

.001

.07

.002

.03

<.001

.06

.002

0

<.001

.03

<.001

Date	Time	Sample	PPM	Au oz/T	CN-	pH	Remarks
8-15	6:00	Discharge	∅	1.001			
	6:30	"	∅	1.001			
	7:00	"	∅	1.001			
		Barren	∅	1.001	0.8	10.8	
		Feed	1.10	.032	0.6	11.2	
		Stream	1.25	.036	0.6	11.3	
		Return flow	24 GPM				
		Fresh H ₂ O	5266900 GALLONS				
	8:00	DISCHARGE	.02	1.001			
	8:30	"	.10	1.001			
	9:00	"	.10	1.001			
	9:30	"	.105	.001			
	10:00	"	.102	1.001			
	10:30	"	.100	1.001			
	11:00	"	.01	1.001			
	11:40	"	.04	.001			
	12:00	"	.00	1.001			
	12:30	"	.00	1.001			
	13:00	"	.00	1.001			
	13:30	"	.01	1.001			
	14:00	"	.00	1.001			
	14:30	"	.00	1.001			
	15:00	"	.00	1.001			
	15:30	"	.00	1.001			
	16:00	"	.05	.001			
			168				

Date Time	Sample	PPM	Au oz/t	CU.	pH	Remarks
1530	DISCHARGE	.08	.002			
1600	"	.00	1.001			
1630	"	.00	1.001			
17:00	"	.00	1.001			
17:30	"	.00	1.001			
18:00	"	0	1.001			
18:15	Barren	0	<.001	0.9	10.83	
	Feed	1.07	.031	0.7	11.09	
	Stream	.98	.028	0.6	11.50	
	Return rate	24	GPM			
	Fresh H ₂ O	5284	200 Gal.			
18:30	Discharge	.04	.001			
19:00	"	.07	.002			
19:30	"	.05	.001			
20:00	"	.04	.001			
20:30	"	.06	.002			
21:00	"	.09	.003			
21:30	"	.03	<.001			
22:00	"	.05	.001			
22:30	"	.03	<.001			
23:00	"	.03	<.001			
23:30	"	.09	.003			
24:00	"	.06	.002			
:30	"	.03	<.001			
1:00	"	.02	<.001			
1:30	"	.04	.001			

Date	Time	Sample	PPM ^{Au}	oz/t	CN-	pH	Remarks
8-15	2:00	Discharge	0	<.001			
	2:30	"	.03	<.001			
	3:00	"	.05	.001			
	3:30	"	0	<.001			
	4:00	"	0	<.001			
	4:30	"	0	<.001			
	5:00	"	.05	.001			
	5:30	"	.02	<.001			
8-16	6:00	"	0	<.001			
	6:20	Barren	.02	<.001	0.9	10.97	
		Feed	1.17	.034			
		Streams	1.12	.032			
		Return flow	24	GPM			
		Fresh H ₂ O	530	2500	GALLONS		
	6:45	Discharge	.03	<.001			
	7:10	"	.02	<.001			
	7:30	"	.03	<.001			
	8:00	"	.00	<.001			
	8:30	"	.05	.001			
	9:00	"	.02	<.001			
	9:30	"	.02	<.001			
	9:45	"	0	<.001			
	10:30	"	0	<.001			
	11:00	"	0	<.001			
	11:30	"	0	<.001			

Date / Time	Sample	PPM Au	O ₂ /t	CN	pH	Remarks
12:00	DISCHARGE	.05	.001			
13:00	"	.01	1.001			
13:30	"	.06	1.001			
14:00	"	.04	.001			
14:30	"	.03	1.001			
15:00	"	.00	1.001			
15:30	"	.00	1.001			
16:00	"	.03	1.001			
16:30	"	.00	1.001			
17:00	"	.00	1.001			
17:30	"	.02	1.001			
18:00	"	.02	1.001			
18:15	Barren	0	1.001	0.8	10.87	
	Feed	1.10	.032	0.6	11.18	
	Stream	.98	.028	0.6	11.46	
	Return rate	29 GPM				
	Fresh H ₂ O	5322700 Gal.				
18:30	Discharge	.07	.002			
19:00	"	.06	.002			
19:30	"	.05	.001			
20:00	"	.04	.001			
20:30	"	0	1.001			
21:00	"	0	1.001			
21:30	"	.05	.001			
22:00	"	.01	1.001			
22:30	"	.03	1.001			

Date	Time	Sample	PPM Au	Oz/l	CN-	pH	Remarks
8/16	23:00	Discharge	.07	.002			
	23:30	"	.03	<.001			
	24:00	"	0	<.001			
	24:30	"	.03	<.001			
	1:00	"	.06	.002			
	1:30	"	.07	.002			
	2:00	"	0	<.001			
	2:30	"	0	<.001			
	3:00	"	.04	.001			
	3:30	"	0	<.001			
	4:00	"	.05	.001			
	4:30	"	0	<.001			
	5:00	"	.02	<.001			
	5:30	"	.05	.001			
8-17	6:05	"	.07	.002			
	6:35	"	0	<.001			
	7:30	"	0	<.001			
		Barren	0.01	<.001	1.0		
		Feed	1.06	.031			
		Stream	1.00	.029			
		Return rate	29 GPM				
		Fresh H ₂ O	5335200	GALLONS			
	17:30	Discharge	0	<.001			
	18:00	"	0	<.001			
	18:30	"	0.01	<.001			

Date	Time	Sample	PPM Au	Oz/t	CW-	pH	Remarks
8-17	18:45	Barren	0	<.001	1.0	11.11	
"	"	Feed	1.05	.030	0.6	11.45	
"	"	Stream	1.00	.029	0.6	11.65	
"	"	Return rate	29	GPM			
"	"	Fresh H ₂ O	535	2000	Gal-		
	19:00	Discharge	0	<.001			
	19:30	"	0	<.001			
	20:00	"	.01	<.001			
	20:30	"	.09	.003			
	21:00	"	0	<.001			
	21:30	"	.02	<.001			
	22:00	"	0	<.001			
	22:30	"	.02	<.001			
	23:00	"	.03	<.001			
	23:30	"	.03	<.001			
	24:00	"	.02	<.001			
	:30	"	0	<.001			
	1:00	"	.02	<.001			
	1:30	"	0	<.001			
	2:15	"	.03	<.001			
	3:00	"	0	<.001			
	3:30	"	.02	<.001			
	4:00	"	.02	<.001			
	4:30	"	.03	<.001			
	5:00	"	0	<.001			
	5:20	"	0	<.001			

Date	Time	Sample	PPM Au	Oz/l	CN	pH	Remarks
8-18	6:00	Discharge	∅	<.001			
	7:00	"	∅				
		Barren	∅	<.001	1.0	10.9	
		Feed	1.10	.032			
		Stream	1.10	.032			
		Return rate	~ 31	GPM			
		Fresh H ₂ O	5372	400	GALLONS		
	8:00	Discharge	∅	<.001			
	8:30	"	∅	<.001			
	9:00	"	∅	<.001			
	9:30	"	∅	<.001			
	10:00	"	.05	.001			
	10:30	"	.05	<.001			
	11:30	"	∅	<.001			
	12:00	"	∅	<.001			
	12:30	"	.01	<.001			
	1:00	"	.09	.003			
	1:30	"	.03	<.001			
	2:00	"	∅	<.001			
	2:30	"	∅	<.001			
	3:00	"	∅	<.001			

Date

Time

Sample

PPM Au

Oz/t

CW-

pH

Remarks

8/21

11:00

Discharge

.06

.002

11:20

"

.10

.003

11:30

"

.04

.001

11:40

"

Ø

<.001

Barren

Feed

1.04

stream

1.31

Return flow

30 GPM

Fresh H₂O

5536500

12:10

Discharge

.04

.001

12:35

"

Ø

<.001

13:00

"

Ø

<.001

13:30

"

Ø

<.001

14:00

"

.03

.001

14:30

"

Ø

<.001

15:00

"

Ø

<.001

15:30

"

.04

.001

16:00

"

Ø

<.001

16:30

"

Ø

<.001

17:00

"

Ø

<.001

17:30

"

Ø

<.001

18:00

"

.02

<.001

18:30

"

.04

.001

19:00

"

Ø

<.001

Date	Time	Sample	Ppm Au	Oz/H	CN-	pH	Remarks
8-21	19:00	Barren	0	2.001	0.9	10.52	
"	"	Feed	1.09	1.032	0.5	11.52	
"	"	Return	1.20	1.035	0.8	11.78	
"	"	Return rate	30	GPM			
"	"	Fresh H ₂ O	5545	300			
19:30	"	Discharge	0	2.001			
20:00	"	"	0	2.001			
20:30	"	"	.02	2.001			
21:00	"	"	.04	2.001			
21:30	"	"	.03	2.001			
22:30	"	"	0	2.001			
23:00	"	"	0	2.001			
23:30	"	"	.02	2.001			
24:00	"	"	0	2.001			
:30	"	"	.03	2.001			
1:00	"	"	.05	2.001			
1:30	"	"	.09	.003			
2:00	"	"	0	2.001			
2:30	"	"	0	2.001			
3:00	"	"	.07	.002			
3:30	"	"	.04	.001			
4:00	"	"	0	2.001			
4:30	"	"	0	2.001			
5:00	"	"	0	2.001			
5:30	"	"	0	2.001			

Date
Time
8/22
6:15

	Sample	ppm Au	Oz/t	CN-	pH	Remarks
	Discharge	∅	<.001			
	BARREN	0.00	<.001	.9		
	FEED	1.10	.032			
	Stream	1.35	.039			
	Return flow	34 GPM				
	Fresh H ₂ O	5558	900	GALLONS		
06:45	DISCHARGE	∅	<.001			
7:17	"	∅	<.001			
8:00	"	∅	<.001			
8:30	"	105	.001			
9:00	"	101	<.001			
9:30	"	105	<.001			
10:00	"	105	.001			
10:30	"	108	.002			
11:00	"	∅	<.001			
11:30	"	∅	<.001			
12:00	"	∅	<.001			
11:49	"	134	.01			
14:28	"	15	.004			
15:00	"	07	.002			
16:00	"	04	.001			
16:30	"	∅	<.001			
17:00	"	∅	<.001			
17:30	"	03	<.001			
18:00	"	∅	<.001			
18:30	"	04	.001			

Date	Time	Sample	PPM Au	oz/t	CN-	pH	Remarks
8/22	19:00	Barren	0	<.001	1.1	11.03	
"	"	Feed	1.11	.032	0.7	11.52	
"	"	Stream	1.38	.046	0.6	11.59	
"	"	Return rate	33 GPM				
"	"	Fresh H ₂ O	33 5593700 Gal.				
"	"	Discharge	.08	.002			
19:30	"	"	.16	.005			
19:50	"	"	.16	.005			
19:55	"	"	.14	.004			
20:10	"	"	.20	.006			
20:20	"	"	.22	.006			
20:35	"	"	.30	.009			
20:40	"	"	.18	.005			
20:45	"	"	.18	.005			
21:00	"	"	.28	.008			
21:10	"	"	.20	.006			
21:25	"	"	.14	.004			
21:30	"	"	.10	.003			
21:40	"	"	.14	.004			
21:45	"	"	.20	.006			
21:50	"	"	.12	.003			
21:55	"	"	.06	.002			
22:00	"	"	.20				
22:34	"	"	.20				
23:00	"	"	.10	.003			

Date
Time

Sample	PPM	Au 02/4	CN-	PH	Remarks
Discharge	.10	.003			
"	.07	.002			
"	.03	<.001			
"	.04	.001			
"	.03	<.001			
"	.04	.001			
"	.03	<.001			
"	.04	.001			
"	.03	<.001			
"	.03	<.001			
"	.04	.001			
"	.03	<.001			
"	.03	<.001			
"	.01	<.001			
"	.01	<.001			
"	.04	.001			
"	0	<.001			
"	.03	<.001			
"	.01	<.001			
"	.01	<.001			
"	.04	.001			
"	0	<.001			
"	102	<.001			
"	0	<.001			
Barren	.02	<.001	1.1	10.9	
Feed	1.16	.034	0.7	11.5	
Stream	1.46	.042	0.6		
Return flow	+ 30 GPM				
Fresh H ₂ O	5028300	GALLONS			

Date / Time	Sample	PPM Au	oz/t	CN-	pH	Remarks
7:00	DISCHARGE	.01	2.001			
7:30	"	.02	2.001			
8:00	"	.05	.001			
8:00	"	∅	2.001			
9:30	"	∅	2.001			
10:00	"	∅	2.001			
10:30	"	∅	2.001			
11:00	"	∅	2.001			
11:30	"	∅	2.001			
12:00	"	∅	2.001			
12:30	"	∅	2.001			
13:00	"	∅	2.001			
14:00	"	∅	2.001			
14:30	"	∅	2.001			
15:00	"	∅	2.001			
15:30	"	.00	.003			
16:00	"	∅	2.001			
16:30	"	.03	2.001			
17:00	"	∅	2.001			
17:30	"	.03	2.001			
18:00	"	.02	2.001			
18:30	Barren	∅	2.001	1.2	11.09	11.40
"	Feed	1.17	.034	0.7	11.36	11.81
"	Stream	1.44	.042	0.6	11.50	11.99
"	Return rate	30	GPM			
"	Fresh H ₂ O	5661	100 Gal.			

old battery
↓
new battery
↓

Date	Time	Sample	PPM	Au Oz/t	CW-	pH	Remarks
8-23	18:30	Discharge	0	<.001			
	19:00	"	.04	.001			
	19:30	"	0	<.001			
	20:00	"	0	<.001			
	20:30	"	.01	<.001			
	21:00	"	0	<.001			
	21:30	"	.01	<.001			
	22:00	"	0	<.001			
	22:30	"	.02	<.001			
	23:00	"	.04	.001			
	23:30	"	.10	.003			
	23:45	"	0	<.001			
	15	"	.02	<.001			
	45	"	.02	<.001			
	1:15	"	.01	<.001			
	2:00	"	.02	<.001			
	2:30	"	.16	.005			
	2:45	"	.04	.001			
	3:15	"	.04	.001			
	4:00	"	.03	<.001			
	4:30	"	0	<.001			
	5:00	"	0	<.001			
	5:30	"	0	<.001			
8-24	6:00	"	0	<.001			
	6:30	"	0	<.001			

Date / Time

Sample	PPM	As ^{III} Oz/l	CN ⁻	pH	Remarks
Discharge	∅	2.001			
Heap 1	1.14	.033			
" 2	.80	.023			
" 3	.30	.009			
" 4	3.10	.090			
Barren	.01	<.001	1.0	10.8	
Feed	1.22	.035	0.6	11.3	
Stream	1.33	.039	0.6	11.5	
Return flow	+ 30	GPM			
Fresh H ₂ O	5095600	GALLONS			

0730

DISCHARGE

∅ 2.001

0800

"

∅ 2.001

0830

"

∅ 2.001

0900

"

∅ 2.001

0930

"

∅ 2.001

10:30

"

∅ 2.001

11:00

∅ 2.001

12:05

"

∅ 2.001

12:30

"

∅ <.001

13:05

"

∅ <.001

1330

"

1.09 .003

1400

"

∅ 2.001

14:40

"

∅ 2.001

15:00

"

∅ 2.001

15:30

"

∅ 2.001

TURNED OFF ZN
WAITING FOR TRACE

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Date	Time	Sample	PPM Au	Oz/t	CN-	pH	Remarks	
	16:00	DISCHARGE	.05	1.001				
	16:30	"	∅	2.001				
	17:00	"	∅	2.001				
	17:30	"	∅	2.001				
	18:15	"	∅	2.001				
	18:45	"	.02	2.001				
	19:00	Barren	∅	2.001	1.0	10.8		
		Feed	1.25	.036	0.7	11.5		
		Stream	1.45	.042	0.7	11.7		
		Return rate	30 GPM					
		Fresh H ₂ O	57193.00 gal.					
	19:30	Discharge	∅	2.001				
	20:00	"	∅	2.001				
	20:30	"	∅	2.001				
	21:00	"	∅	2.001				
	21:30	"	.10	.003				
	22:00	"	∅	2.001				
	22:30	"	.05	.001				
	23:00	"	.02	2.001				
	23:30	"	∅	2.001				
	24:00	"	∅	2.001				
	:45	"	∅	2.001				
	1:30	"	∅	2.001				
	2:00	"	∅	2.001				
	2:30	"	∅	2.001				
	3:00	"	∅	2.001				

Date	Time	Sample	ppm	Au Oz/t	CN ⁻	pH	Remarks
8-24	3:30	Discharge	Ø	2.001			
	4:00	"	Ø	2.001			
	4:30	"	.10	.003			
	5:00	"	Ø	2.001			
	5:30	"	Ø	2.001			
8-25	6:25	"	.10	.003			
	7:00	"	Ø	2.001			
		Burton	Ø	2.001			
		FEED	1.36	.039			
		Stream	1.50	.044			
		Return flow	+ 30 GPM				
		Fresh H ₂ O	5735200 GALLONS				
	7:42	Discharge	Ø	2.001			
	8:30	"	Ø	2.001			
	9:00	"	Ø	2.001			
	9:30	"	Ø	2.001			
	10:30	"	Ø	2.001			
	11:00	"	Ø	2.001			
	11:30	"	Ø	2.001			
	12:00	"	Ø	2.001			
	12:30	"	Ø	2.001			
	13:30	"	Ø	2.001			
	15:00	"	Ø	2.001			
	15:35	"	Ø	2.001			
	16:00	"	Ø	2.001			

Date / Time	Sample	Ppm	Au Oz / t	CN-	pH	Remarks
16:30						
17:00						
17:30						
8-28-89						
0900	DISCHARGE	.61	.018			
0930	"	.30	.008			
1000	"	∅	2.001			
1030	"	∅	2.001			
1100	STREAM	1.28	.037	.7	11.48	
	FEED	1.48	.043	.8	11.6	
	BARREN	1.20	1.001	.7	11.4	
	DISCHARGE	∅	2.001			
12:00	"	∅	2.001			
12:30	"	∅	2.001			
1300	"	∅	2.001			TURNED OFF ZN
1330	"	.10	.029			
1400	"	∅	2.001			
14:30	"	∅	2.001			
15:00	"	∅	2.001			TURNED OFF ZN
15:30	"	.10	.029			
16:00	"	∅	2.001			
16:30	"	∅	2.001			
17:00	"	∅	2.001			
17:30	"	∅	2.001			
18:00	"	.05	.001			Zn on
18:30	"	∅	2.001			

Date	Time	Sample	PPM Au	oz/l	CN-	pH	Remarks	
8-28	19:00	Barren	0	<.001	1.0	10.70		
"	"	Feed	1.49	.043	0.7	11.55		
"	"	Stream	1.37	.040	0.7	11.78		
"	"	Return rate	25 GPM					
"	"	Fresh H ₂ O	5894300 Gal					
"	"	Vacuum	-20 PSI					
"	"	Discharge	0	<.001				
	19:30	"	.02	<.001				
	20:00	"	0	<.001				
	20:30	"	.02	<.001				
	21:00	"	.03	<.001				
	21:30	"	.05	.001				
	22:15	"	0	<.001				
	23:00	"	0	<.001				
	23:30	"	0	<.001				
	24:00	"	.02	<.001				
	:30	"	.03	.001				
	1:00	"	0	<.001				
	1:30	"	0	<.001				
	2:15	"	.01	<.001				
	3:00	"	0	<.001				
	3:30	"	0	<.001				
	4:00	"	0	<.001				
	4:30	"	0	<.001				
	5:00	"	0	<.001				
	5:30	"	.02	<.001				

Date	Time	Sample	ppm	AU	oz/l	CN-	pH	Remarks
8/29	6:30	DISCHARGE	∅		1.001			
	7:00	"	∅		1.001			
	07:50	"	.10		1.029			
	08:00	"	∅		1.001			
	08:30	STREAM	1.48		.043	0.5	11.48	
	"	FEED	1.32		.038	0.7	11.64	
	"	BARREN	∅		1.001	0.9	10.93	
	"	DISCHARGE	∅		1.001			
	09:00	"	∅		1.001			
	09:30	"	.10		1.022			
	10:00	"	.∅		1.001			
	10:30	"	.∅		1.001			
	11:00	"	∅		1.001			
	11:30	"	∅		1.001			
	12:00	"	∅		1.001			
	12:30	"	∅		1.001			
	13:00	"	∅		1.001			
	13:30	"	∅		1.001			
	14:00	"	∅		1.001			
	14:30	"	∅		1.001			
	15:00	"	∅		1.001			
	16:30	"	∅		1.001			
	16:10	"	∅		1.001			
	16:30	"	∅		1.001			TORNER OFF ZU
	17:00	"	.04		.001			

Date/Time	Sample	PPM	Au O ₂ /t	Ca ²⁺	pH	Remarks
17:30	DISCHARGE	∅	<.001			
18:00	"	∅	2.001			
18:30	"	∅	<.001			
19:00	Barren	∅	<.001	1.0	11.15	
"	Feed	1.43	.042	0.7	11.60	
"	stream	1.54	.045	0.6	11.79	
"	return rate	30	GPM			
"	Discharge	∅	<.001			
19:30	"	.04	.001			
20:00	"	∅	<.001			
20:30	"	.02	<.001			
21:00	"	.03	<.001			
21:30	"	.10	.003			
22:00	"	∅	<.001			
22:30	"	∅	<.001			
23:00	"	∅	<.001			
23:30	"	∅	<.001			
24:00	"	∅	<.001			
00:30	"	.02	<.001			
01:00	"	.03	<.001			
01:30	"	∅	<.001			
02:00	"	∅	<.001			
02:30	"	∅	<.001			
03:00	"	.03	<.001			
03:30	"	.01	<.001			

Date / Time

Date / Time	Sample	PPM Au	Oz / +	CU-	pH	Remarks
04:00	Discharge	0	<.001			
04:30	"	0	<.001			
05:00	"	.02	<.001			
05:30	"	0	<.001			
06:00	"	0	<.001			
06:30	"	0	<.001			
07:00	"	0	<.001			
07:30	"	105	.001			
08:00	STREAM	1.55	.045	.8	11.39	30 gpm
"	FEED	1.55	.039	.6	11.25	
"	BARREN	0	<.001	1.0	11.03	
"	DISCHARGE	0	<.001			
08:30	"	0	<.001			
9:34	"	.02	<.001			
10:00	"	.03	<.001			
10:30	"	0	<.001			
11:00	"	0	<.001			
11:30	"	0	<.001			
12:00	"	0	<.001			
12:30	"	0	<.001			
13:00	"	.03	<.001			
13:50	"	0	<.001			
14:00	"	0	<.001			
14:30	"	0	<.001			
15:00	"	0	<.001			

Date / Time	Sample	PPM ^{Au}	O ₂ / t	CN-	pH	Remarks
30/Aug 1530	DISCHARGE	Ø	2.001			
1600	"	Ø	2.001			
1630	"	Ø	2.001			
17:00	"	Ø	2.001			Toenka off 2N
17:30	"	.05	2.001			
18:00	"	Ø	2.001			
18:30	"	Ø	2.001			
19:00	Barren	Ø	2.001	1.0	11.20	
"	Feed	1.46	.042	0.7	11.44	
"	stream	1.57	.046	0.7	11.66	
"	return rate	30+	GPM			
"	Discharge	.02	2.001			
19:30	"	Ø	2.001			
20:00	"	.02	2.001			
20:30	"	Ø	2.001			
21:00	"	.05	.001			
21:30	"	Ø	2.001			
22:00	"	Ø	2.001			
22:30	"	Ø	2.001			
23:00	"	Ø	2.001			
23:30	"	.03	2.001			
24:00	"	.04	.001			
00:30	"	Ø	2.001			
01:00	"	.04	.001			
01:30	"	Ø	2.001			

Date	Time	Sample	PPM ^{Au}	Oz/lt	CW-	pH	Remarks
8-30	2:00	Discharge	∅	<.001			
	2:30	"	∅	<.001			
	3:00	"	∅	<.001			
	3:30	"	∅	<.001			
	4:00	"	.02	<.001			
	4:30	"	.04	.001			
	5:00	"	∅	<.001			
	5:30	"	∅	<.001			
8-31	6:05	"	∅	<.001			
		BARREN	∅	<.001	1.0	11.23	
		FEED	1.56	.045	.7	11.49	
		STREAM	1.61	.047	.7	11.37	
		RETURN FCOW	+ 40	GPM			
		FRESH H ₂ O	5911900	GALLONS			
	0630	DISCHARGE	∅	<.001			
	0700	"	.05	.001			
	0730	"	∅	<.001			
	0800	"	.02	<.001			
		Section # 4	1.14	.033			
		" # 3	.64	.019			
		" # 2	.25	.007			
		" # 1	2.70	.078			
	0900	DISCHARGE	∅	<.001			
	0930	"	.02	<.001			
	1000	"	.03	<.001			
	1030	"	∅	<.001			

Date	Time	Sample	PPM ^{Au}	Oz/l	CN-	pH	Remarks
	9-71						
	11:00	Discharge	∅	<.001			
	11:30	"	∅	<.001			
	12:00	"	∅	<.001			
	13:00	"	∅	<.001			
	13:30	"	∅	<.001			
	14:20	"	∅	<.001			
	15:00	"	∅	<.001			
	15:30	"	104	.001			
	16:00	"	∅	<.001			
	16:30	"	∅	<.001			
	17:00	"	.03	<.001			
	17:30	"	∅	<.001			
	18:10	"	.20	.006			?
	18:20	"	.02	<.001			
	19:30	Barren	.06	.002	1.1	11.27	
	"	feed	1.53	.044	0.7	11.52	
	"	stream	1.61	.047	0.7	11.67	
	"	return rate	40+	GPM			
	19:00	Discharge	.05	.001			
	19:30	"	∅	<.001			
	20:00	"	.01	<.001			
	20:30	"	.02	<.001			
	21:00	"	∅	<.001			
	21:30	"	.02	<.001			
	22:15	"	.03	<.001			
	23:00	"	∅	<.001			

Date

Time

8-31

23:30

Sample
Discharge

PPM Au Oz/t

CN- pH

Remarks

24:00

"

.03

<.001

00:30

"

.03

<.001

01:00

"

.02

<.001

01:30

"

.05

<.001

02:00

"

~~0~~

<.001

02:30

"

~~0~~

<.001

03:00

"

~~0~~

<.001

03:30

"

~~0~~

<.001

04:00

"

.02

<.001

04:30

"

.02

<.001

05:00

"

~~0~~

<.001

05:30

"

.03

<.001

9/1

6:00

Discharge

.10

.003

6:30

"

~~0~~

<.001

BARREN

.02

<.001

1.0

11.1

FEED

1.60

.041

0.6

11.3

STREAM

1.70

.049

0.6

11.6

RETURN FLOW. PLUS 40 GPM FRESH H₂O 5922000 Gall.

7:15

DISCHARGE

~~0~~

<.001

8:00

"

~~0~~

<.001

9:00

"

.01

<.001

9:30

"

.04

.001

10:00

"

.01

<.001

Au

DATE/TIME	SAMPLE	ppm	oz/t	CN-	pH
9/1 10:30	Discharge	.01	2.001		
11:00	"	.00	2.001		
11:45	"	.05	.001		
12:15	"	Ø	2.001		
12:45	"	Ø	2.001		
1:00	"	Ø	2.001		
1:30	"	Ø	2.001		
13:30	"	.05	.001		
9/1 12:15	"	Ø	2.001		
Return Flow 29 GPM					
	Barran	Ø	2.001	.5	9.2
	Feed	.74	.021	.7	10.8
	stream	1.67	.048	.5	10.8
12:45	Discharge	Ø	2.001		
1:15	"	Ø	2.001		
1:45	"	Ø	2.001		
2:15	"	Ø	2.001		
2:40	"	Ø	2.001		
3:15	"	Ø	2.001		
3:35	"	Ø	2.001		
4:10	"	Ø	2.001		
4:35	"	Ø	2.001		
5:15	"	Ø	2.001		
5:45	"	Ø	2.001		
18:00	"	Ø	2.001		

Date / Time

9/14 19:45

Sample Discharge

PPM Au O₂/t

CN-

pH

1.50

20:00

"

1.38

20:10

"

1.64

20:15

1.90

22:00

.60

22:55

.66

23:10

.07

.002

23:30

Barren

.05

.001

0.6

9.78

"

Feed

1.49

.043

0.7

11.54

Sample taken from bleeder valve on preg pump

"

Stream

1.50

.044

0.6

17.85

"

Return rate

34 GPM

"

Fresh H₂O

6137200

"

Discharge

.05

.001

24:00

"

.07

.002

00:30

"

.07

.002

1:00

"

~~0~~

<.001

1:30

"

~~0~~

<.001

2:00

"

~~0~~

<.001

2:30

"

~~0~~

<.001

3:00

"

.05

.001

3:30

"

.07

.002

4:00

"

.03

<.001

4:30

"

.08

.002

5:00

"

~~0~~

<.001

5:30

"

.05

.001

Date / Time

9-5

Time	Sample	PPM Au	oz/t	CN-	pH
0630	DISCHARGE	∅	1.001		
0700	"	∅	1.001		
0730	"	∅	1.001		
0800	STREAM	1.50	.044	0.6	11.85
"	FEED	1.48	.043	.5	10.58
"	BARREN	∅	1.001	.5	9.78
"	DISCHARGE	∅	1.001		
0830	"	∅	1.001		
0900	"	∅	1.001		
0930	"	∅	1.001		
1000	"	∅	1.001		
1030	"	106	.002		
1100	"	∅	1.001		
1130	"	∅	1.001		
1200	"	∅	1.001		
1230	"	∅	1.001		
1300	"	∅	1.001		
1330	"	∅	1.001		
1400	"	∅	1.001		
1430	"	∅	1.001		
1500	"	∅	1.001		
1530	"	10	.003		
1600	"	113	.004		
1630	"	103	1.001		
1700	"	∅	1.001		

Date / Time
9-5

Date / Time	Sample	PPM	Au Oz/t	CD-	pH	Remarks
17:30	Discharge	∅	<.001			
18:00	"	∅	<.001			
18:30	"	∅	<.001			
19:00	Barren	.01	<.001	0.7	10.15	
"	Feed	1.50	.044	0.6	11.44	
"	stream	1.22	.035	0.7	11.64	
"	Return rate	40	GPM			
"	Fresh H ₂ O	616	2000			
"	Discharge	∅	<.001			
19:30	"	∅	<.001			
20:00	"	.03	<.001			
20:30	"	.07	.002			
21:00	"	.02	<.001			
21:30	"	∅	<.001			
22:00	"	∅	<.001			
22:30	"	.06	.002			
23:00	"	∅	<.001			
23:30	"	.02	<.001			
24:00	"	∅	<.001			
00:30	"	∅	<.001			
01:00	"	.03	<.001			
01:30	"	∅	<.001			
02:00	"	.02	<.001			
02:30	"	.02	<.001			
03:00	"	∅	<.001			

Date	Time	Sample	PPM Au	O ₂ /t	CN-	pH	
9-5	03:30	Discharge	∅	2.001			
	04:00	"	∅	<.001			
	04:30	"	∅	<.001			
	05:00	"	.04	1.001			
	05:30	"	∅	<.001			
9-6	06:00	"	∅	2.001			
	06:30	"	∅	2.001			
	07:00	"	∅	2.001			
	07:30	STREAM	1.36	.039	11.42	.6	42 GPM
	"	FEED	1.60	.046	.6	11.44	
	"	BARREN	∅	2.001	1058	.7	
	"	DISCHARGE	∅	2.001			
	08:00	"	∅	<.001			
	08:30	"	∅	2.001			
	09:00	"	∅	2.001			
	09:30	"	∅	2.001			
	10:00	"	∅	2.001			
	10:30	"	1.03	2.001			
	11:00	"	∅	2.001			
	11:30	"	∅	2.001			
	12:00	"	∅	<.001			
	12:30	"	1.03	2.003			
	13:00	"	∅	2.001			
	13:30	"	∅	2.001			
	14:00	"	∅	2.001			

Date / Time

Date / Time	Sample	PPM Au	O ₂ /t	CU-	pH
1430	Discharge	∅	<.001		
1500	"	∅	<.001		
1530	"	∅	<.001		
1600	"	∅	<.001		
1630	"	∅	<.001		
1700	"	.01	<.001		
1730	"	∅	<.001		
18:00	"	∅	<.001		
18:30	"	.03	<.001		
19:00	Barren	.01	<.001	0.9	11.19
"	Feed	1.49	.043	0.6	11.66
"	Stream	1.37	.040	0.7	11.92
"	Return Flow	40 GPM			
"	Fresh H ₂ O	6175400			
"	Discharge	.04	.001		
19:30	"	.10	.003		
20:00	"	.05	.001		
20:45	"	.04	.001		
21:00	"	∅	<.001		
21:30	"	∅	<.001		
22:00	"	.03	<.001		
22:30	"	.05	.001		
23:00	"	∅	<.001		
23:30	"	.03	<.001		
24:00	"	.02	<.001		

out of comp. Air, hooked
A.A. up to compressor

Date	Time	Sample	PPM Au	O ₂ /t	CN-	pH
9-6	00:30	Discharge	∅	<.001		
	01:00	"	.03	<.001		
	01:30	"	.02	<.001		
	02:00	"	∅	<.001		
	02:30	"	∅	<.001		
	03:00	"	∅	<.001		
	03:30	"	∅	<.001		
	04:00	"	∅	<.001		
	04:30	"	∅	<.001		
	05:00	"	∅	<.001		
	05:30	"	∅	<.001		
	06:00	"	∅	<.001		
	06:30	"	∅	<.001		
	07:00	"	∅	<.001		
	07:45	"	.03	<.001		
	08:00	"	.06	.002		
	08:30	"	∅	<.001		
	09:00	"	∅	<.001		
	09:30	"	∅	<.001		
	10:00	"	.02	<.001		
	10:30	"	.01	<.001		
	11:00	"	∅	<.001		
	11:30	"	∅	<.001		
	12:00	"	∅	<.001		

293-8689 *GENE
JAY TOCSON*

9-7

	STREAM	1.39	.040	.7	11.85
	FEED	1.49	.043	.6	11.50
	BARREN	∅	2.001	.9	11.15
	DISCHARGE	∅	2.001		
1230	"	∅	2.001		
1300	"	∅	2.001		
1330	"	∅	2.001		
1400	"	∅	2.001		
1430	"	∅	2.001		
1500	"	∅	2.001		
15:30	"	.04	.001		
1600	"	∅	2.001		
1630	"	.02	2.001		
1700	"	.02	2.001		
1730	"	.03	.001		
18:00	"	.02	2.001		
18:30	"	.07	.002		
18:45	Barren	∅	2.001	0.9	11.22
	Feed	1.49	.043	0.6	11.42
	Stream	1.44	.042	0.6	11.70
	Return rate	47 GPM			
19:00	Discharge	.10	.003		
19:30	"	∅	2.001		
20:00	"	.06	.002		
20:30	"	.05	.001		

Date	Time	Sample	PPM Au	Oz/t	CN-	pH
9-7	21:00	Discharge	.03	<.001		
	21:30	"	.04	.001		
	22:00	"	.04	.001		
	22:30	"	0	<.001		
	23:00	"	.03	<.001		
	23:30	"	.05	.001		
	24:00	"	.02	<.001		
	00:30	"	.09	.003		
	01:00	"	.04	.001		
	01:30	"	.02	<.001		
	02:00	"	0	<.001		
	02:30	"	.03	<.001		
	03:00	"	0	<.001		
	03:30	"	.04	.001		
	04:00	"	0	<.001		
	04:30	"	0	<.001		
	05:00	"	.02	<.001		
	05:30	"	.03	<.001		
	06:30	"	.03	<.001		
	07:00	STREAM	1.43	.042	.6	11.47
	"	FEED	1.47	.043	.6	11.33
	"	BARREN	0	<.001	.9	11.2
	"	DISCHARGE	.04	.001		
	08:00	"	0	<.001		
	08:30	"	0	<.001		

Date Time	Sample	PPM Au	O ₂ l	CM	pH
0900	DISCHARGE	∅	2.001		
0000	"	∅	2.001		
1030	"	.04	.001		
1130	"	∅	2.001		
1200	"	∅	2.001		
1230	"	∅	2.001		
1300	"	.03	2.001		
1330	"	.08	1.002		
1400	"	.02	2.001		
1430	"	.01	2.001		
1500	"	.02	2.001		
1530	"	.0	2.001		
1600	"	∅	2.001		
1630	"	.020	1.002		
1700	"				
9/11/89	stream	1.42	.041	1.5	11.7
	Feed	1.25	.036	.7	11.5
	Barron				
	Flow Rate	40.9PM			
8:15	Discharge	.18	.005		
8:30	"	.0	2.001		
9:00	"	∅	2.001		
9:30	"	∅	2.001		
10:00	"	.20	.006		
10:30	"	∅	2.001		

STOP DOWN

Date Time	Sample	PPM Au	O ₂ / l	CN-	pH
11:00	"	∅	2.001		
12:15	"	∅	2.001		
1:05	"	85	.001		
1:35	"	∅	2.001		
2:00	"	.12	.003		
2:30	"	.04	.001		
2:45	"	∅	2.001		
3:15	"	∅	2.001		
3:45	"	∅	2.001		
5:35	"	01	2.001		
18:00	"	.03	2.001		
18:30	"	∅	2.001		
18:45	Barren	∅	2.001	0.7	10.15
"	Feed	1.44	.042	0.6	11.56
"	Stream	1.34	.039	0.6	11.89
"	Return rate	40 GPM			
"	Fresh H ₂ O	6380200 gal.			
19:00	Discharge	∅	2.001		
19:30	"	.03	2.001		
20:00	"	.05	.001		
20:30	"	∅	2.001		
21:00	"	.05	.001		
21:30	"	.03	2.001		
22:00	"	.04	.001		
22:30	"	.04	.001		

Date	Time	Sample	ppm Au	Oz / t	CN-	pH
9-11	23:00	Discharge	.03	<.001		
	23:30	"	.02	<.001		
	24:00	"	.05	.001		
	00:30	"	.03	<.001		
	01:00	"	.03	<.001		
	01:30	"	.05	.001		
	02:00	"	.03	<.001		
	0630	"	∅	<.001		
	0700	"	∅	<.001		
	0730	STREAM	1.45	.042	.5	11.53
	"	FEED	1.44	.041	.4	10.13
	"	BARREN	∅	<.001	.6	10.99
	"	DISCHARGE	∅	<.001		
	0800	"	.03	<.001		
	0830	"	.03	<.001		
	0900	"	∅	<.001		
	0930	"	∅	<.001		
	1000	"	∅	<.001		
	1030	"	∅	<.001		
	1100	"	∅	<.001		
	1130	"	∅	<.001		
		Stream	1.33	.044		
		Heap 1	1.12	.032		
		2	.66	.019		
		3	.18	.005		
		4	2.17	.063		

70.2 GPM

Date Time	Sample	PPM Au	Oz/lr	CN-	ph	
	LEAD	1.87	.054			29 cc/MIN
1200	DISCHARGE	∅	2.001			
1230	"	∅	2.001			
1300	"	∅	2.001			
1330	"	∅	2.001			TURVED of ZN
1400	"	.05	.001			
1430	"	.01	2.001			
1500	"	.04	.001			
1530	"	∅	2.001			
1600	"	∅	2.001			
1630	"	∅	2.001			
1700	"	∅	2.001			
17:30	"	∅	2.001			
18:00	"	∅	2.001			
18:30	"	∅	2.001			
"	Barren	∅	2.001	0.8	11.11	
"	Feed	1.49	.043	0.5	11.71	
"	stream	1.39	.040	0.6	11.92	
"	return rate	70 GPM				
"	fresh H ₂ O	6430/100 Gal.				
19:00	Discharge	∅	2.001			
19:45	"	.20	.006			
20:00	"	.18	.005			
20:15	"	.16	.005			
20:30	"	.05	.001			

Date
Time

9-12
21:00

Sample
Discharge

PPM Au

021+

CN-

pH

~~0~~

<.001

21:30

"

.02

<.001

22:00

"

~~0~~

<.001

22:10

L.D.

1.57

.046

0.5

10.01

50 ml/min

22:30

Discharge

~~0~~

<.001

23:00

"

.05

.001

23:30

"

~~0~~

<.001

24:00

"

.04

.001

00:30

"

.10

.003

01:00

"

~~0~~

<.001

01:30

"

~~0~~

<.001

02:00

"

~~0~~

<.001

02:30

"

~~0~~

<.001

03:00

"

~~0~~

<.001

03:30

"

.01

<.001

04:00

"

.01

.001

04:30

"

~~0~~

<.001

05:00

"

.02

<.001

05:30

"

.06

.002

06:00

"

.01

<.001

06:30

"

.02

<.001

07:00

"

~~0~~

<.001

07:30

"

~~0~~

<.001

08:00

"

~~0~~

<.001

DATE/TIME	SAMPLE	PPM	AU/TON	CN	PH	REMARKS
0815	STREAM	1.34	.039	.5	11.30	80 gpm
	FEED	140	.041	.6	11.41	
	BARREN	∅	2.001	.8	11.14	
0900	DISCHARGE	.13	.004			
0930	"	.04	.001			
1000	"	∅	2.001			
1100	"	.03	2.001			
1130	"	∅	2.001			
1200	"	∅	2.001			
1230	"	∅	2.001			
1300	"	∅	2.001			
1330						
1400		.38	.011			
14:30	"	∅	2.001			
1500	"	∅	2.001			
1530	"	∅	2.001			
1600	"	∅	2.001			
1630	"	∅	2.001			
1700	"	.02	2.001			
1740	"	∅	2.001			
18:50	"	∅	2.001			
18:40	"	∅	2.001			
19:00	"	.08	.002			
19:15	"	.02	2.001			
20:00	"	∅	2.001			

Date	Time	Sample	PPM	Au oz/t	CW	ph	Remarks
9-13	20:00	Barren	.10	.003	0.8	11.33	
"	"	Feed	1.30	.038	0.7	11.77	
"	"	stream	1.19	.036	0.6	11.94	
"	"	return rate	80	GPM			
	20:30	Discharge	.09	.003			
	21:00	"	.04	.001			
	21:30	"	.05	.001			
	22:00	"	.02	<.001			
	22:30	"	0	<.001			
	23:00	"	0	<.001			
	23:30	"	0	<.001			
	24:00	"	.03	<.001			
	00:30	"	0	<.001			
	01:00	"	.05	.001			
	01:30	"	0	<.001			
	02:00	"	.08	.002			
	02:30	"	0	<.001			
	03:00	"	.07	.002			
	03:30	"	.01	<.001			
	04:00	"	0	<.001			
	04:30	"	.05	.001			
	05:00	"	.04	.001			
	05:30	"	.06	.002			
	06:30	"	.01	<.001			

Date	Time	Sample	PPM	Au oz/t	CN-	ph	Remarks
	0700	STREAM	1.28	.037	.6	11.45	89.9 Gpm
		FEED	1.56	.045	.7	11.56	
		BARREN	∅	2.001	.9	11.40	
		DISCHARGE	∅	2.001			
	0730	"	.01	2.001			
	0800	"	.01	2.001			
	0830	"	.02	2.001			
	0915	"	.12	.003			
	1000	"	∅	2.001			
	1030	"	.01	2.001			
	1100	"	∅	2.001			
	1130	"	∅	2.001			
	1200	"	∅	2.001			
	1230	"	.02	2.001			
	1300	"	∅	2.001			
	1330	"	∅	2.001			
	1400	"	.02	2.001			
	1430	"	∅	2.00			
	1500	"	∅	2.001			
	1530	"	∅	2.001			
	1600	"	.07	.002			
	1630	"	.03	2.001			
	17:00	"	.06	.002			
	1730	"	.04	.001			
	18:15	"	.03	2.001			

Date	Time	Sample	PPM	Au	Oz/lit	CN-	pH	Remarks
9-14	18:45	Discharge	.02		2.001			
	19:00	Barren	.03		2.001	1.0	11.42	
	"	Feed	1.47		.043	0.7	11.50	
	"	Stream	1.30		.038	0.6	11.74	
	19:15	Discharge	∅		2.001			
	19:45	"	∅		2.001			
	20:30	"	∅		2.001			
	21:00	"	.02		2.001			
	21:30	"	∅		2.001			
	22:00	"	.03		2.001			
	22:45	"	∅		2.001			
	23:30	"	.05		.001			
	24:00	"	∅		2.001			
	00:30	"	∅		2.001			
	01:00	"	∅		2.001			
	01:30	"	∅		2.001			
	0800	STREAM	1.04		.030			
		BARREN	∅		2.001			
	10:25	DISCHARGE	.20		.006			
	10:35	"	.03		2.001			
	11:00	"	∅		2.001			
	11:20	"	.35		.018			
	5:37	"	∅		2.001			
	6:00	"	∅		2.001			
	18:30	"	∅		2.001			
	19:00	"	.08		.002			

DATE SEPT 15	Time	SAMPLE	PRM	OZ/T	CN	PH	REMARKS
	19:30	d. discharge	∅	L.001			
	20:30	"	∅	L.001			
	21:00	"	∅	L.001			
	21:30	"	∅	L.001			
	22:00	"	∅	L.001			
	22:30	"	∅	L.001			
	23:00	"	∅	L.001			
	23:30	"	.03	L.001			
	0:00	BUSY					
	0:30	"	.40	.011			
	0:50	"	.10	.003			
	1:11	"	.04	.001			
	1:50	"	.03	L.001			
	2:30	"	.12	.003			
	3:00	"	∅	L.001			
		BARREN	.07	.002	.9	10.8	
		Stream	1.09	.031	.8	11.5	
		FEED	.98	.028	.7	11.4	
	3:30	Digcharge	∅	L.001			
	4:00	"	∅	L.001			
	4:30	"	∅	L.001			
	5:00	"	∅	L.001			
	5:45	"	∅	L.001			
	7:00	"	∅	L.001			
	7:30	"	∅	L.001			
	9:30	"	∅	L.001			

9/6/89

	SAMPLE	PPM	OZ/T	CN	PTH	Remarks
	Barron					
	Feed	1.29	.037	.8	11.2	
	stream	1.12	.032	.7	11.7	
8:00	Discharge	Ø	L.001			
8:30	"	.06	.002			
9:00	"	.17	.005			
9:30	"	.24	.007			
10:00	"	Ø	L.001			
10:40	"	Ø	L.001			
11:15	"	Ø	L.001			
11:45	"	Ø	L.001			
12:15	"	Ø	L.001			
12:50	"	Ø	L.001			
1:20	"	06	002			
1:50	"	Ø	L.001			
2:20	"	Ø	L.001			
2:50	"	02	L.001			
3:30	"	.65	001			
4:00	"	Ø	L.001			
4:30	"	.08	002			
5:00	"	Ø	L.001			
5:30	"	Ø	L.001			
18:30	"	Ø	L.001			
19:00	"	Ø	L.001			
19:30	"	.09	.002			
19:50	"	.04	.001			

Date Time	SAMPLE	PPM	OZ/T	CW	PH	Remarks
SEPT 16 22000	Discharge	.10	.003			
22:30	"	∅	2.001			
23:00	"	∅	2.001			
0:00	"	∅	2.001			
0:30	"	∅	2.001			
1:30	"	∅	2.001			
2:00	"	∅	2.001			
2:45	"	∅	2.001			
3:30	"	∅	2.001			
4:00	"	.02	2.001			
4:30	"	∅	2.001			
5:00	"	∅	2.001			
5:30	"	∅	2.001			
9/17/89 6:20	"	∅	2.001			
7:00	"	∅	2.001			
8:15	"	∅	2.001			
8:45	"	∅	2.001			
9:15	"	∅	2.001			
9:45	"	.02	2.001			
10:15	"	∅	2.001			
10:45	"	.07	.002			
	Stream	1.36	.039	.8	11.3	
	Feed	1.30	.049	1.0	11.3	
	Barren					
	Discharge					

Date/Time	SAMPLE	PPM	OZ/T	CN	PH	Remarks
11:15	"	.05	.001			
11:45	"	.07	.002			
12:15	"	.03	L.001			
12:45	"	.02	L.001			
1:15	"	∅	L.001			
1:45	"	∅	L.001			
2:15	"	∅	L.001			
2:45	"	∅	L.001			
3:15	"	∅	L.001			
3:45	"	∅	L.001			
4:15	"	∅	L.001			
4:45	"	∅	L.001			
5:15	"	∅	L.001			
5:45	"	∅	L.001			
2:30	"	∅	L.001			
3:00	"	∅	L.001			
"	stream	1.02	.03	.7	11.5	
"	FEED	1.04	.03	.7	11.4	
"	Barron	∅	L.001	1.3	11.5	
3:30	Discharge	.07	.002			
4:30	"	∅	L.001			
5:10	"	.05	.001			
5:45	"	.04	.001			
6:20	"	.05	.001			
6:55	"	∅	L.001			

date/time	SAMPLE	PPM	OZ/T	CN	PH	Remarks
	Feed					
	stream					
	Barren					
7:20	Discharge	∅	4.001			
7:55	"	0	2.001			
8:20	"	.05	.001			
1:00	"	∅	4.001			
1:30	"	∅	4.001			
2:00	"	∅	4.001			
2:30	"	∅	4.001			
3:00	"	∅	4.001			
15:30	"	.04	.001			
16:00	"	∅	4.001			
16:30	"	∅	4.001			
17:00	"	.95	.028			
17:16	"	.50	.015			
17:30	"	.60	.017			
18:00	"	.70	.020			
18:20	"	.13	.004			
18:30	Barren	.32	.009	1.3	11.61	
"	Feed	1.12	.032	0.6	11.84	
"	stream	.85	.025	0.7	11.99	
18:45	Discharge	.10	.003			
19:10	"	.13	.004			
19:30	"	.10	.003			
20:00	"	.20	.006			

Date	Time	Sample	PPM	Au	Oz/lit	CN-	pH	Remarks
9-18	20:15	Discharge	.10		.003			
	20:30	Dis "	.05		.001			
	21:00	"	.12		.003			
	21:20	"	.20		.006			
	21:45	"	.20		.006			
	21:55	"	.10		.003			
	22:00	"	.03		<.001			
	22:10	"	.03		<.001			
	22:30	"	.10		.003			
	23:00	"	.06		.002			
	23:30	"	0		<.001			
	24:00	"	0		<.001			
	00:30	"	.10		.003			
	01:00	"	.07		.002			
	01:30	"	.08		.002			
	02:00	"	.05		.001			
	02:30	"	.05		.001			
	03:00	"	.08		.002			
	03:30	"	.03		<.001			
	04:00	"	0		<.001			
	04:30	"	0		<.001			
	05:00	"	0		<.001			
	05:30	"	.03		<.001			
	06:00	"	.03		<.001			
	06:30	"	.05		.001			

DATE/TIME

DATE/TIME	SAMPLE	PPM	AD/TON	LD	PH	REM.
	STREAM	.89	.026	.6	11.54	70.8 bpm
	FEED	1.01	.029	.7	11.48	
	BARREN	.11	.003	1.2	11.60	
0730	DISCHARGE	Ø	<.001			
0800	"	.02	<.001			
14:12	"	.10	.003			
14:35	"	.03	<.001			
15:10	"	Ø	<.001			
15:40	"	.03	<.001			
16:30	"	.02	<.001			
1700	"	.03	<.001			
1730	"	Ø	<.001			
1800	"	Ø	<.001			
18:30	"	Ø	<.001			
19:00	"	Ø	<.001			
19:30	"	Ø	<.001			
21:12	"	.02	<.001			
21:30	"	Ø	<.001			
22:00	"	Ø	<.001			
23:00	"	Ø	<.001			
23:30	"	Ø	<.001			
0:00	"	Ø	<.001			
0:30	"	Ø	<.001			
1:15	"	Ø	<.001			
2:00	"	Ø	<.001			
2:30	"	.10	.003			

DATE
TIME

9-19
3:30

9/20 0600

6:30

6:50

7:22

7:52

8:22

8:52

9:30

10:10

10:30

11:15

11:50

12:30

"

"

"

"

13:00

14:15

15:05

15:45

16:45

17:00

17:30

18:00

PPM

oz
/ton

CN

PH

REMARKS

Discharge

"

"

"

"

"

"

"

"

"

"

"

"

"

STREAM

Feed

Barren

Fresh H₂O

Discharge

"

"

"

"

"

"

"

∅

.30

.07

∅

∅

∅

∅

∅

∅

∅

.03

.05

.04

∅

.98

1.07

1.03

666

∅

∅

∅

∅

.10

∅

∅

∅

<.001

.009

.002

<.001

<.001

<.001

<.001

<.001

1.001

<.001

<.001

.001

.001

<.001

.028

.031

1.001

3300

<.001

<.001

<.001

<.001

1005

<.001

<.001

<.001

←

No CN IN SYSTEM

Zn feeder turned off

little Zn addition

GALLONS

Zn back on roll

Date	Time	Sample	^{Au} ppm	Oz/t	CN-	pH
9-20	18:30	Discharge	.02	2.001		
	19:15	"	∅	<.001		
	20:00	"	.03	<.001		
	20:20	"	.03	<.001		
	20:30	Barren	.12	.003	0.6	11.54
		Feed	1.08	.031	0.6	11.86
		stream	.92	.027	0.7	11.92
	21:00	Discharge	∅	2.001		
	21:45	"	.02	<.001		
	22:15	"	.05	<.001		
	22:45	"	.04	.001		
	23:30	"	∅	<.001		
	24:00	"	.03	<.001		
	00:30	"	∅	<.001		
	01:00	"	∅	<.001		
	01:30	"	∅	<.001		
	02:00	"	.07	.002		
	02:45	"	∅	<.001		
	03:15	"	∅	<.001		
	03:45	"	.03	<.001		
	04:30	"	.08	.002		
	05:00	"	.10	.003		
	05:30	"	.15	.004		
	05:50	"	∅	<.001		
	06:30	"	∅	<.001		

DATE/TIME	SAMPLE	PPM	AD/TON	CN	PH	REMARKS
9/21						
7:00	Discharge	∅	<.001			
0730	STREAM	1.00 .75	.029 .022	0.6	11.40	
"	FEED	1.03	.030	0.6	11.57	
"	BARREN	.01	<.001	0.7	11.46	
8:00	DISCHARGE	∅	<.001			
9:00	"	∅	<.001			
9:35	"	∅	<.001			
10:40	"	∅	<.001			
11:40	"	.15	.004			
12:00	"	∅	<.001			
12:24	"	∅	<.001			
13:40	"	∅	<.001			
14:28	"	∅	<.001			
15:05	"	.03	<.001			
15:40	"	∅	<.001			
16:10	"	∅	<.001			
16:45	"	∅	<.001			
17:20	"	∅	<.001			
18:00	"	∅	<.001			
18:30	"	∅	<.001			
19:00	Barren	∅	<.001	0.7	11.39	
"	Feed	1.01	.029	0.5	11.54	
"	Stream	.86	.025	0.6	11.59	
"	Discharge	∅	<.001			
19:30	"	∅	<.001			
20:00	"	∅	<.001			

Date	Time	Sample	PPM	Au O ₂ /t	CN-	pH	Remarks
9-21	20:30	Discharge	0	<.001			
	21:00	"	0	<.001			
	21:45	"	0	<.001			
	22:30	"	0	<.001			
	23:00	"	.02	<.001			
	23:30	"	0	<.001			
	24:00	"	0	2.001			
	00:30	"	.03	<.001			
	01:00	"	0	<.001			
	01:30	"	.03	<.001			
	02:00	"	0	<.001			
	02:30	"	0	<.001			
	03:00	"	0	<.001			
	03:30	"	.02	<.001			
	04:00	"	0	<.001			
	04:30	"	.03	<.001			
	05:00	"	0	<.001			
	05:30	"	0	<.001			
9/22	6:15	"	0	<.001			
	6:55	"	.03	<.001			
	7:30	"	0	<.001			
	07:50	Barren	0	<.001	.7	11.56	
		STREAM	.90	.026	.6	11.41	
		FEED	1.00	1030	.6	11.32	
	8:10	DISCHARGE	0	<.001			

Date/Time	Sample	PPM	Au oz/t	CN-	pH	Remarks
0840	Discharge	∅	2.001			
0905	"	∅	1.001			
0930	"	∅	2.001			
10:30	"	∅	1.001			
11:30	"	∅	2.001			
12:30	"	∅	2.001			
13:30	"	∅	2.001			
17:50	"	2.16	.062			
18:00	"	.73	.021			
18:20	"	.05	.001			
18:40	"	∅	2.001			
19:00	Barren	.10	.003	0.7	11.49	
"	Feed	.99	.029	0.6	11.64	
"	Stream	.76	.022	0.6	11.84	
"	Return rate	50+	GPM			
"	Fresh H ₂ O	6689600	gal.			
"	Discharge	.01	2.001			
19:30	"	.05	.001			
20:00	"	.02	2.001			
20:30	"	.04	.001			
21:10	"	∅	2.001			
21:50	"	.02	2.001			
22:30	"	.02	2.001			
23:15	"	∅	2.001			
24:00	"	.05	.001			

Date Time	Sample	ppm ^{As}	O ₂ /l	CU-	pH	Remarks
9-22 00:30	Discharge	.03	<.001			
01:00	"	0	<.001			
01:30	"	0	<.001			
02:00	"	0	<.001			
02:30	"	0	<.001			
03:00	"	.02	<.001			
03:30	"	0	<.001			
04:00	"	0	<.001			
04:30	"	0	<.001			
05:00	"	0	<.001			
05:30	"	.07	.002			
9-23 06:00	"	.02	<.001			
	stream	.68	.020	.8	11.6	
	Feed	.85	.025	.7	11.8	
	Barron	.9	.003	.9	11.3	
6:00	Discharge	0	<.001			
6:30	"	.11	.003			
7:00	"	0	<.001			
7:30	"	0	<.001			
8:00	"	0	<.001			
8:30	"	0	<.001			
9:00	"	0	<.001			
9:30	"	0	<.001			
10:00	"	0	<.001			

Date _____
Time _____

Sample

PPM Au

Oz / t

CN-

pH

Remarks

10:30

"

∅

4.001

11:00

"

∅

4.001

11:30

"

∅

4.001

12:00

"

∅

4.001

2:30

"

.03

4.001

1:00

"

∅

4.001

1:30

"

∅

4.001

2:00

"

∅

4.001

2:30

"

∅

4.001

3:00

"

∅

4.001

3:30

"

∅

4.001

4:00

"

∅

4.001

4:30

"

.04

.001

5:00

"

∅

4.001

5:30

"

∅

4.001

6:00

"

∅

4.001

6:30

"

∅

4.001

7:00

"

∅

4.001

7:30

"

∅

4.001

8:00

"

∅

4.001

8:30

"

∅

4.001

9:00

"

∅

4.001

9:30

"

∅

4.001

10:00

"

∅

4.001

10:30

∅

4.001

11:11

"

∅

4.001

Date	Time	Sample	PPM	Ac ⁺ O ₂ H ⁻	CN ⁻	pH	Remarks
	11:30	"	100	1.001			
	12:00	"	102	1.001			
	12:30	"	∅	1.001			
	1:00	"	∅	1.001			
	1:30	"	∅	1.001			
	2:00	"	∅	1.001			
	2:30	"	∅	1.001			
	3:00	"	∅	1.001			
	3:30	"	∅	1.001			
	4:00	"	∅	1.001			
	4:30	"	∅	1.001			
	5:00	"	∅	1.001			
	5:30	"	∅	1.001			

Day Shift
9/24/6:00

6:30	"		.10	.003			
7:00	"		∅	1.001			
		Feed	.69	.020	.7	11.2	
		Barren	.03	1.001	1.0	10.8	
		stream	.56	.016	.7	11.5	
7:30		Discharge	∅	1.001			
8:00		"	∅	1.001			
8:30		"	.08	.002			
9:00		"	∅	1.001			

Date	Time	Sample	PPM ^{Au}	O ₂ / t	CW	pH	Remarks
	9:30	"	∅	2.001			
	10:00	"	∅	2.001			
	10:06	"	.06	.002			
	10:30	"	.02	2.001			
	11:00	"	∅	2.001			
	11:20	"	∅	2.001			
	11:50	"	.03	2.001			
	12:20	"					
	12:40	"	∅	2.001			
	1:20	"	∅	2.001			
	1:50	"	∅	2.001			
	2:20	"	∅	2.001			
	2:50	"	∅	2.001			
	3:20	"	∅	2.001			
	3:50	"	∅	2.001			
	4:20	"	.02	2.001			
	4:50	"	.14	.004			
	5:20	"	.14	.004			
	5:50	"	∅	2.001			
	6:35	"	∅	2.001			
	7:00	"	∅	2.001			
	7:30	"	∅	2.001			
	8:00	"	∅	2.001			
		FEED	.77	.022	.9	10.8	
		BARRON	.03	2.001	.6	9.5	
		STREED	.80	.023	.5	11.3	

Date Time	Sample	ppm	Av oz/l	CN-	pH	Remarks
8:30	"	∅	L.001			
9:00	"	∅	L.001			
9:30	"	∅	L.001			
10:00	"	∅	L.001			
10:30	"	∅	L.001			
11:00	"	∅	L.001			
11:30	"	∅	L.001			
9/25 3:00	"					
3:00	"	∅	L.001			
3:30	"	∅	L.001			
4:00	"	.03	L.001			
4:30	"	∅	L.001			
5:00	"	∅	L.001			
5:30	"	∅	L.001			
6:00	"	∅	L.001			
78:30	Barren	.02	L.001	0.7	10.79	
"	Feed	.93	.027	0.6	11.43	
"	stream	.92	.024	0.6	11.48	
"	return rate	30+	GPM			
"	Fresh H ₂ O	6848800	Gal			
"	Discharge	.04	.001			
19:15	"	.06	.002			
19:45	"	.05	.001			
20:20	"	.04	.001			

Date
Time

9-25

Sample PPM Au O₂/t CN- pH Remarks

Date	Time	Sample	PPM Au	O ₂ /t	CN-	pH	Remarks
9-25	21:00	Discharge	.05	.001			
	21:30	"	0	<.001			
	22:00	"	0	<.001			
	22:30	"	0	<.001			
	23:00	"	.06	.002			
	23:30	"	.05	.001			
	24:00	"	0	<.001			
	00:30	"	0	<.001			
	01:00	"	0	<.001			
	01:30	"	0	<.001			
	02:00	"	0	<.001			
	02:30	"	.03	<.001			
	03:00	"	.05	.001			
	03:30	"	0	<.001			
	04:00	"	0	<.001			
	04:30	"	0	<.001			
	05:00	"	.03	<.001			
	05:30	"	.01	<.001			
9-26	06:00	"	.03	<.001			
	06:45	"	0	<.001			
	07:25	"	0	<.001			
		STREAM	.83	.024	.6	11.29	+30 GPM
		FEED	.87	.025	.5	11.04	
		BARREN	0	<.001	.7	11.29	
	08:00	DISCHARGE	0	<.001			

Date Time	Sample	PPM Au	O ₂ lt	CN-	pH	Remarks
0841	"	.02	<.001			
0930	"	.01	<.001			
1000	"	∅	<.001			
10:30	"	∅	<.001			
11:30	"	.04	.001			
12:00	"	∅	<.001			
12:40	"	∅	<.001			
1340	"	.01	<.001			
1400	"	∅	<.001			
1430	"	∅	<.001			
1505	"	∅	<.001			
1530	"	∅	<.001			
1600	"	∅	<.001			
1630	"	.05	.001			
1730	"	.03	<.001			
18:00	"	.07	.002			
"	Barren	.03	<.001	0.8	10.93	
"	feed	.92	.027	0.5	11.22	
"	stream	.89	.026	0.6	11.35	
"	return rate	30+	GPM			
18:30	Discharge	.03	<.001			
19:00	"	.04	.001			
19:30	"	.05	.001			
20:00	"	.04	.001			
20:30	"	∅	<.001			

Date/Time

Sample
Discharge

ppm Au Oz/t

CN- pH

Remarks

9-26 21:00

.02 <.001

21:30 "

0 <.001

22:00 "

.04 .001

22:30 "

0 <.001

23:00 "

0 <.001

23:30 "

0 <.001

24:00 "

0 <.001

00:30 "

.02 <.001

01:00 "

0 <.001

01:30 "

0 <.001

02:00 "

0 <.001

02:30 "

.04 .001

03:00 "

.01 <.001

03:30 "

0 <.001

04:00 "

0 <.001

04:30 "

.02 <.001

05:00 "

.06 .002

05:30 "

0 <.001

9-27 06:00

0 <.001

06:30 "

.04 .001

07:00 "

.01 <.001

07:30 "

0 <.001

08:00 "

0 <.001

08:30 "

.07 .002

Date / Time	Sample	PPM	$\mu\text{g/l}$	CN-	pH	Remarks
	STREAM	1.05	.030	.7	11.17	
	FEED	1.17	.034	.6	11.31	
	BARREN	.01	<.001	.8	11.20	
0900	DISCHARGED	\emptyset	<.001	—	—	
0930	"	.03	<.001			
1015	"	\emptyset	<.001			
1045	"	.03	<.001			
11:20	"	\emptyset	<.001			
1200	"	.05	.001			
1240	"	\emptyset	<.001			
1310	"	\emptyset	<.001			
1400	"	.03	<.001			
1500	"	.16	.002			
1545	"	.02	<.001			
1615	"	\emptyset	<.001			
17:00	"	\emptyset	<.001			
1745	"	.05	.001			
18:00	"	.10	.003			
18:15	Barren	\emptyset	<.001	0.8	11.29	
"	Feed	.95	.028	0.6	11.46	
"	Stream	.96	.028	0.5	11.56	
"	Return rate	30	GPM			
18:30	Discharge	.12	.003			
18:45	"	\emptyset	<.001			
19:15	"	.03	<.001			
19:45	"	\emptyset	<.001			

Date / Time Sample PPM Au Oz/H CN- pH Remarks

9-27 / 20:30

Discharge

.02 <.001

21:00

"

∅ <.001

21:30

"

∅ <.001

22:00

"

∅ <.001

22:30

"

.05 .001

23:00

"

.02 <.001

23:30

"

∅ <.001

24:00

"

.02 <.001

00:30

"

.03 <.001

01:00

"

.10 .003

01:30

"

∅ <.001

02:00

"

∅ <.001

02:30

"

.02 <.001

03:00

"

.03 <.001

03:30

"

.07 .002

04:00

"

∅ <.001

04:30

"

.03 <.001

05:00

"

∅ <.001

05:30

"

∅ <.001

9-28

06:18

"

.03 <.001

06:45

"

∅ <.001

TURNED OFF ZN.

07:10

"

∅ <.001

08:00

STREAM

.94 .027

16

11.35

+ 30 GPM

08:00

REED

110 .032

16

11.23

Date/Time	Sample	PPM ^{As}	Or/t	CN	pH	Remarks
0800	Discharge	∅	2.001			
8:30	"	.03	<.001			
9:35	"	.04	.001			
10:05	"	.02	2.001			
10:40	"	.01	<.001			
11:15	"	∅	<.001			
12:00	"	∅	2.001			
12:20	"	∅	<.001			
13:00	"	∅	2.001			
13:30	"	∅	<.001			
14:00	"	∅	2.001			
14:33	"	∅	<.001			
15:00	"	∅	2.001			
15:30	"	∅	2.001			
16:20	"	∅	<.001			
17:00	"	.03	2.001			
17:30	"	∅	2.001			
18:00	"	.04	.001			
18:30	"	∅	2.001			
"	Barren	∅	2.001	0.8	11.25	
"	Feed	.99	.029	0.5	11.38	
"	Stream	.99	.029	0.5	11.52	
"	Return rate	25+	∅pm			
19:00	Discharge	.01	2.001			
19:30	"	∅	<.001			
20:00	"	.02	2.001			

Date
9-28
Time
20:30

Sample
Discharge

PPM Au Oz/t CN- pH

Remarks

21:00

"

0 < .001

21:30

"

0 < .001

22:00

"

0 < .001

22:30

"

0 < .001

23:00

"

.04 .001

23:30

"

0 < .001

24:00

"

0 < .001

00:30

"

0 < .001

01:00

"

0 < .001

01:30

"

.03 < .001

02:00

"

.02 < .001

02:30

"

0 < .001

03:00

"

0 < .001

03:30

"

0 < .001

04:00

"

0 < .001

04:30

"

0 < .001

05:00

"

.01 < .001

05:30

"

0 < .001

06:20

"

.02 < .001

07:00

"

0 < .001

07:30

STREAM

1.01 .029

FEED

1.08 .031

BARDEN

0 < .001

DISCHARGE

.04 .001

Date / Time	Sample	PPM ^µ	Oz/l	CN-	pH	Remarks
08:24	DISCHARGE	.02	1.001			
9:00	"	.10	.003			
9:20	"	.06	.002			
9:40	"	Ø	<.001			
10:00	"	Ø	<.001			
10:30	"	Ø	<.001			
11:15	"	Ø	<.001			
11:45	"	Ø	<.001			
12:00	"	Ø	<.001			
12:30	"	Ø	<.001			
13:00	"	Ø	<.001			
14:15	"	Ø	<.001			
15:15	"	Ø	<.001			
16:00	"	Ø	<.001			
17:00	"	.02	<.001			
18:30	"	Ø	<.001			
18:45	"	.02	<.001			
18:30	"	Ø	<.001			
19:10	"	0.4	.001			
21:30	"	0.2	<.001			
8:00	"	0.2	<.001			
8:30	"	0.4	.001			
9:00	"	0.4	.001			
9:30	"	0.6	.002			
10:00	"	0.3	<.001			

Time	Sample	PPM	Qz/r	Remark
10:30	"	0.1	L.001	AA UNSTABLE
11:00	"	0.1	L.001	
11:30	"	0.1	L.001	
12:00	"	0.3	L.001	
12:30	"	0.3	L.001	
1:00	"	0.2	L.001	
1:30	"	∅	L.001	
2:00	"	0.1	L.001	
2:30	"	0.1	L.001	
3:00	"	0.1	L.001	
3:30	"	0.1	L.001	
4:00	"	0.1	L.001	
4:30	"	∅	L.001	
5:00	"	0.1	L.001	
5:30	"	0.2	L.001	
6:00	"	0.2	L.001	
6:30	"	.36	.010	
6:45	"	.29	.009	
6:50	"	.11	.003	
7:00	"	∅	L.001	
7:15	"	∅	L.001	
7:45	"	∅	L.001	
8:15	"			

Borden
ST. LOUIS
Feed

Date/Time	Sample	PPM ^{Au}	OZ/T	CN	PH
	Discharge				
	Barron	.07	.002	.9	11.5
	stream	.83	.024	.5	11.6
	Feed	.90	.026	.7	11.2
8:15	"	∅	4.001		
8:45	"	∅	4.001		
9:15	"	∅	4.001		
9:45	"	∅	4.001		
10:15	"	∅	4.001		
10:45	"	∅	4.001		
11:15	"	.01	4.001		
11:45	"	∅	4.001		
12:15	"	.07	.002		
12:45	"	∅	4.001		
1:15	"	∅	4.001		
1:45	"	∅	4.001		
2:15	"	∅	4.001		
2:45	"	∅	4.001		
3:15	"	.05	.001		
3:45	"	.04	.001		
4:15	"	∅	4.001		
4:45	"	∅	4.001		
6:15	"	∅	4.001		
5:45	"				
6:00	"	∅	4.001		

	Sample	PPm	ozt	CN	PH
6:30	"	∅	2.001	∅	
	STREAM	.76	.022	.5	11.3
	BORROW	.05	.001	.9	11.2
	FEED	.88	.025	.4	10.9
7:00	Sample	∅	2.001		
7:30	"	∅	2.001		
8:00	"	∅	2.001		
8:30	"	∅	2.001		
9:00	"	∅	2.001		
9:30	"	∅	2.001		
10:00	"	∅	2.001		
10:30	"	.01	2.001		
11:00	"	∅	2.001		
11:30	"	∅	2.001		
12:00	"	∅	2.001		
12:30	"	∅	2.001		
1:00	"	∅	2.001		
1:30	"	∅	2.001		
2:00	"	.02	2.001		
2:30	"	.03	2.001		
3:00	"	.02	2.001		
3:30	"	.02	2.001		
4:00	"	.01	2.001		
4:30	"	.01	2.001		
5:00	"	.01	2.001		
5:30	"	∅	2.001		

Date/time	SAMPLE	PPM	oz/l	CM	PH
	Barron	.04	.001	1.1	11.6
	Feed	.58	.017	.5	11.3
	stream	.62	.018	.5	11.7
6:30	Discharge	.13	.004		
7:00	"	.03	4.001		
7:30	"	∅	4.001		
8:00	"	∅	4.001		
8:30	"	∅	4.001		
9:00	"	∅	4.001		
9:30	"	∅	4.001		
10:00	"	∅	4.001		
10:30	"	∅	4.001		
11:00	"	∅	4.001		
11:30	"	∅	4.001		
12:00	"	∅	4.001		
12:30	"	∅	4.001		
1:00	"	.15	.004		
1:30	"	∅	4.001		
2:00	"	.12	.003		
2:30	"	.15	.004		

~~_____~~
 Oct 2, 1989

13:30	Disch Org e	∅.	4.001		
14:08	"	.05	.001		

DATE/TIME	SAMPLE	Au ppm	Au oz/t	CN-	pH	REMARKS
14:10	STREAM	1.09	.032			
	FEED	1.00	.029			
	BARREN					
14:35	Discharge	.05	.001			
15:00	"	.05	.001			
15:35	"	.44	.013			
15:46	"	.07	.002			
16:30	"	.38	.011			
16:40	"	.06	.002			
16:50	"	0	2.001			
17:20	"	.09	.001			
17:30	"					
18:10	"	0	2.001			
18:30	Barren	0	2.001	0.9	11.41	
	Feed	.99	.029	0.5	11.47	
	stream	.93	.027	0.4	11.58	
	return rate	35+	gpm			
18:45	Discharge	0	2.001			
19:15	"	0	2.001			
19:45	"	.09	.003		ST. 11.32	.5
20:15	"	.04	.001		FD 11.45	.5
20:45	"	.25	.007			
21:00	"	.12	.003		BR 11.40	.9
21:15	"	.17	.005			
21:30	"	.06	.002			

21.6	22.1	23.0
<u>21.1</u>	<u>21.6</u>	<u>21.1</u>
4.5	15	.9

Date/Time	Sample	ppm Au	Oz/t	CN-	pH	Remarks
10-2 21:45	Discharge	Ø	2.001			
22:00	"	.04	.001			
22:30	"	Ø	<.001			
23:00	"	Ø	2.001			
23:30	"	Ø	2.001			
24:00	"	Ø	2.001			
20:30	"	Ø	2.001			
01:00	"	Ø	2.001			
01:30	"	Ø	2.001			
02:00	"	Ø	2.001			
02:30	"	Ø	2.001			
03:00	"	Ø	2.001			
03:30	"	Ø	2.001			
04:00	"	Ø	2.001			
04:30	"	.05	.001			
05:00	"	Ø	<.001			
05:30	"	Ø	2.001			
10-3 6:15	Discharge	Ø	<.001			
	Barren	Ø	<.001	.9	11.4	
	Stream	.94	.027	1.5	11.32	
	Feed	.94 .28	.027	1.5	11.45	
	Return rate	+ 35	GPM			
7:15	Discharge	Ø	<.001			
8:05	"	.03	.001			

Date Time	Sample	Au ppm	Au oz/t	CN ⁻	pH
8:35	Discharge	∅	<.001		
0900	"	∅	1.001		
9:45	"	∅	<.001		
10:25	"	∅	<.001		
11:00	"	∅	<.001		
11:30	"	∅	1.001		
12:10	"	∅	<.001		
12:30	"	∅	1.001		
13:17	"	.05	.001		
1400	"	.10	.001		
1445	"	∅	1.001		
15:20	"	∅	<.001		
15:45	"	∅	<.001		
16:00	"	∅	<.001		
16:30	"	∅	1.001		
1700	"	∅	1.001		
17:30	"	∅	1.001		
18:00	"	∅	1.001		
18:15	Barren	.02	1.001	1.0	11.45
"	Feed	.97	.028	0.5	11.53
"	stream	1.04	.030	0.6	11.71
"	return rate	40+	GPM		
18:30	Discharge	∅	1.001		
19:00	"	∅	1.001		
19:00	"	.04	.001		

Time & Date	Sample	Au ppm	Au oz/t	CN ⁻	pH
10-3 20:00	Discharge	.02	2.001		
20:30	"	.02	2.001		
21:00	"	.04	.001		
21:30	"	.01	2.001		
22:00	"	.01	2.001		
22:30	"	.03	2.001		
23:00	"	∅	2.001		
23:30	"	∅	2.001		
24:00	"	.04	.001		
00:30	"	.03	2.001		
01:00	"	∅	2.001		
01:30	"	.03	2.001		
02:15	"	.05	.001		
03:00	"	∅	2.001		
03:30	"	∅	2.001		
04:00	"	.02	2.001		
04:30	"	.06	.002		
05:00	"	∅	2.001		
05:30	"	∅	2.001		
10-4 15:00	"	128	1008		
15:15	"	∅	2.001		
15:35	"	∅	2.001		
16:00	"	∅	2.001		
16:35	"	∅	2.001		

Date
Time

Au

Date Time	Sample	PPM	02/l	CN-	pH
6:30	DISCHARGE	.12	.003		
6:23	"				
18:00	"	0	2.001		
18:15	Borren	.02	2.001	1.0	11.51
"	Feed	.88	.026	0.6	11.56
"	Stream	1.34	.039	0.6	11.65
"	Return rate	40+	GPM		
18:30	Discharge	0	2.001		
19:00	"	0	5.001		
19:30	"	0	2.001		
20:00	"	0	4.001		
20:30	"	.02	2.001		
21:00	"	.05	.001		
21:30	"	.03	2.001		
22:15	"	.01	2.001		
23:00	"	0	2.001		
23:30	"	.01	2.001		
24:00	"	.05	.001		
00:30	"	0	2.001		
01:00	"	0	2.001		
01:30	"	.03	2.001		
02:00	"	0	2.001		
02:30	"	.01	2.001		
1:2:00	"	0	2.001		
19:30	"	0	2.001		

Date / Time	Sample	PPM Au	Oz/H	CN-	pH
10-4 / 04:00	Discharge	0	<.001		
04:30	"	.01	<.001		
05:00	"	0	<.001		
05:30	"	0	<.001		
10-5 / 6:10	"	.03	.001		
0635	"	0	<.001		
	FEED	-96	.028	.16	11.5
	STREAM	1.10	.032	.16	11.60
	BARREN	.03	<.001	1.0	11.5
	RETURN FLOW	+ 30	GALLONS / MIN		
0700	DISCHARGE	.02	<.001		
0730	"	0	<.001		
8:00	"	0	<.001		
8:50	"	0	<.001		
0900	"	0	<.001		
0930	"	0	<.001		
1035	"	0	<.001		
11:05	"	.02	<.001		
1130	"	.07	.002		
1200	"	.03	<.001		
1230	"	0	<.001		
1300	"	0	<.001		
1330	"	0	<.001		
1400	"	0	<.001		
14:40	"	.02	<.001		

Date	Time	Sample	PPM	Au oz/t	CN-	pH	Remarks
	15:15	Discharge	Ø	<.001			
	16:00	"	Ø	<.001			
	17:00	"	.04	Ø.001			
	17:30	"	Ø	<.001			
	18:00	"	.01	<.001			
	18:15	Barren	.04	.001	1.0	11.39	
	"	Feed	.98	.028	0.6	11.44	
	"	Stream	1.12	.032	0.5	11.60	
	"	return rate	35+	Gpm			
	18:30	Discharge	.04	.001			
	19:00	"	Ø	<.001			
	19:30	"	.05	.001			
	20:00	"	.03	<.001			
	20:30	"	.01	<.001			
	21:00	"	.05	.001			
	21:30	"	.03	<.001			
	22:00	"	.01	<.001			
	22:30	"	.06	.002			
	23:00	"	.06	.002			
	23:30	"	.01	<.001			
	24:00	"	.02	<.001			
	00:30	"	.02	<.001			
	01:00	"	Ø	<.001			
	01:30	"	.03	<.001			
	02:00	"	Ø	<.001			

Date/Time	Sample	PPM	As	Cu	pH
10-5 02:30	Discharge	.03	<.001		
03:00	"	.03	<.001		
03:30	"	0	<.001		
04:00	"	0	<.001		
04:30	"	0	<.001		
05:00	"	0	<.001		
05:30	"	.01	<.001		
10-6 0600	"	0	<.001		
0630	"	0	<.001		
0700	"	0	<.001		
0730	"	0	<.001		
0800	"	0	<.001		
0830	"	0	<.001		
0900	"	0	<.001		
0930	"	0	<.001		
10:00	"	.03	<.001		
1030	"	0	<.001		
1045	STREAM	112	.033	6.0	11.50
1045	FEED	1.03	.030	6.0	11.42
1045	BARREN	0	<.001	1.0	11.40
11.00	DISCHARGE	0	<.001		
" 30	"	0	<.001		
1200	"	0	<.001		
1300	"	0	<.001		
1330	"	0	<.001		

Date Time	Sample	PPM	Air O ₂ (%)	CN-	pH
1406	"	∅	2.001		
1430	"	∅	2.001		
1500	"	∅	2.001		
1530	"	∅	2.001		
1600	"	∅	2.001		
1630	"	∅	2.001		
1700	"	∅	2.001		
1730	"	∅	2.001		
18:00	"	∅	2.001		
18:30	"	∅	2.001		
19:00	"	∅	2.001		
19:30	"	∅	2.001		
20:00	"	∅	2.001		
20:30	"	∅	2.001		
21:00	"	∅	2.001		
21:30	"	∅	2.001		
22:00	"	∅	2.001		
22:30	"	∅	2.001		
23:00	"	.03	2.001		
23:30	"	.01	2.001		
24:00	"	∅	2.001		
24:30	"	∅	2.001		
1:00	"	∅	2.001		
1:30	"	∅	2.001		
2:00	"	∅	2.001		
2:30	"	∅	2.001		

Date Time	Sample	PPM ^{Am}	O ₂ /l	EW-	pH
3:00	"	∅	L.001		
3:30	"	∅	L.001		
4:00	"	.01	L.001		
4:30	"	∅	L.001		
5:00	"	.01	L.001		
5:30	"	∅	L.001		
6:00	"	∅	L.001		
10/6:30	"	∅	L.001		
7:00	"	∅	L.001		
7:30	"	.02	L.001		
	Barron	0	L.001	.7	11.0
	Feed	1.03	.030	1.4	11.6
	stream	.88	.026	.6	11.5
8:00	Discharge	∅	L.001		
8:30	"	.02	L.001		
9:00	"	.∅	L.001		
9:30	"	∅	L.001		
10:00	"	∅	L.001		
10:30	"	∅	L.001		
11:00	"	∅	L.001		
11:30	"	∅	L.001		
12:00	"	.05	.001		
12:30	"	∅	L.001		
	"	∅			

Date Time	Sample	PPM	Air O ₂ l/l	CN-	pH
1:00	"	∅	4.001		
1:30	"	∅	4.001		
2:00	"	∅	4.001		
2:30	"	.02	4.001		
3:00	"	∅	4.001		
3:30	"	∅	4.001		
4:00	"	∅	4.001		
4:30	"	∅	4.001		
5:00	"	∅	4.001		
5:30	"	∅	4.001		
6:00	"	∅	4.001		
6:30	"	∅	4.001		
7:00	"	∅	4.001		
7:30	"	∅	4.001		
8:00	"	∅	4.001		
8:30	"	∅	4.001		
9:00	"	∅	4.001		
9:30	"	∅	4.001		
10:00	"	∅	4.001		
10:30	"	∅	4.001		
11:00	"	∅	4.001		
11:30	"	.01	4.001		
12:00	"	.01	4.001		
12:30	"	.02	4.001		
1:00	"	∅	4.001		

Date Time	Sample	PPM	As ₂ O ₃	CN-	pH
1:30		∅	L.001		
2:00		∅	L.001		
	STREAM	.62	.017	.6	11.3
	FEED	.57	.016	.5	11.4
	BARRON	.01	L.001	.5	9.7
2:30		.03	L.001		
3:00		∅	L.001		
3:30		∅	L.001		
4:00		∅	L.001		
4:30		∅	L.001		
5:00		∅	L.001		
5:30		.03	L.001		
6:00		.01	L.001		
	Barron	∅	L.001	1.1	11.0
	stream	.48	.014	.5	11.5
	Feed	.57	.017	.5	11.5
6:30	Discharge	∅	L.001		
7:00		∅	L.001		
7:30		∅	L.001		
8:00		∅	L.001		
8:30		∅	L.001		
9:00		∅	L.001		
9:30		.03	L.001		
10:00		∅	L.001		

RETURN FLOW
= 34.56 PPM

Date Time	Sample	PPM ^{Mu}	oz/l	CN-	pH
10:30	"	∅	2.001		
11:00	"	∅	2.001		
10/9/89					
15:35	Discharge	∅	2.001		
4:00	"	∅	2.001		
4:30	"	∅	2.001		
5:00	"	∅	2.001		
5:30	"	∅	2.001		
6:00	"	∅	2.001		
18:15	Barren	∅	2.001	0.7	9.25
"	Feed	.96	.028	0.6	11.51
"	Stream	1.00	.029	0.6	11.60
"	return rate	35 +	GPM		
18:30	Discharge	∅	2.001		
19:00	"	∅	2.001		
19:30	"	∅	2.001		
20:00	"	∅	2.001		
20:30	"	∅	2.001		
21:00	"	∅	2.001		
21:30	"	.05	.001		
22:00	"	∅	2.001		
22:30	"	.03	2.001		
23:00	"	∅	2.001		
23:30	"	∅	2.001		
24:00	"	∅	2.001		

Date / Time	Sample	PPM	Au O ₂ / Hr	CN-	pH
10-9 / 00:30	Discharge	0	2.001		
01:00	"	.12	.003		
01:30	"	.14	.004		
02:00	"	0	2.001		
02:30	"	0	2.001		
03:00	"	0	2.001		
03:30	"	0	2.001		
04:00	"	0	2.001		
04:30	"	0	2.001		
05:00	"	0	2.001		
05:30	"	0	2.001		
10-10 / 6:00	"	0	2.001		
7:10	"	.01	2.001		
7:35	"	.02	2.001		
	SIREAM	1.00	.029		
	F220	1.02	.030		
	BARREN	.0	2.001		
8:00	"	.03	2.001		
8:30	"	.01	2.001		
9:00	"	0	2.001		
9:45	"	.01	2.001		
10:15	"	0	2.001		
10:30	"	.03	2.001		
11:00	"	0	2.001		
11:30	"	0	2.001		
12:00	"	0	2.001		

Date / Time	Sample	PPM	Ac 0214	CU	PH
12:30	"	∅	7.001		
13:00	"	∅	7.001		
13:30	"	"	7.001		
14:00	"	"	7.001		
14:30	"	"	7.001		
15:00	"	"	7.001		
15:40	"	"	7.001		
16:00	"	"	7.001		
16:30	"	"	7.001		
17:00	"	"	7.001		
17:30	"	"	7.001		
18:15	Barren	0.01	7.001	0.8	10.89
	Feed	1.05	0.30	0.55	11.45
	Stream	1.00	0.29	0.55	11.59
	Return rate	40+	6.8m		
18:30	Discharge	∅	7.001		
19:00	"	∅	7.001		
19:30	"	∅	7.001		
20:15	"	∅	7.001		
21:00	"	"	7.001		
21:30	"	"	7.001		
21:45	"	"	7.001		
22:00	"	"	7.001		
22:30	"	"	7.001		

Date / Time	Sample	PPM Au	Oz/t	CN-	pH
10-10 / 23:00	Discharge	∅	2.001		
23:30	"	∅	2.001		
24:00	"	.06	.002		
00:30	"	∅	2.001		
01:00	"	∅	2.001		
01:30	"	∅	2.001		
02:00	"	.05	.001		
02:30	"	∅	2.001		
03:00	"	∅	2.001		
03:30	"	∅	2.001		
04:00	"	∅	2.001		
04:30	"	∅	2.001		
05:00	"	∅	2.001		
05:30	"	.03	2.001		
10-11 / 06:00	"	.11	2.003		
06:30	"	∅	2.001		
07:12	"	∅	2.001		
07:30	"	∅	2.001		
	STREAM	.93	2027		
	FEED	.96	220		
	BARREN	∅	2.001		
08:00	Discharge	∅	2.001		
08:30	"	∅	2.001		
09:00	"	∅	2.001		
09:30	"	∅	2.002		
10:00	"	∅	2.001		

Date / Time	Sample	PPM	Au Oz/lit	CN-	pH
10:30	DISCHARGE	∅	2.001		
11:00	"	∅	2.001		
12:00	"	.20	.006		
12:15	"	.10	.003		
12:30	"	∅	2.001		
12:20	"	.101	2.001		
14:00	"	∅	2.001		
14:35	"	∅	2.001		
15:00	"	∅	2.001		
15:30	"	∅	2.001		
16:00	"	∅	2.001		
16:30	"	.02	2.001		
17:00	"	.03	2.001		
17:30	"	∅	2.001		
18:00	"	∅	2.001		
18:15	Barren	∅	2.001	1.0	11.35
"	Field	1.00	.029	0.5	11.44
"	Stream	.91	.026	0.6	11.67
"	Return rate	40+	GPM		
18:30	Discharge	∅	2.001		
19:00	"	.01	2.001		
19:30	"	∅	2.001		
20:00	"	∅	2.001		
20:30	"	.08	.002		
21:00	"	∅	2.001		

Date / Time	Sample	PPM Au	Oz/t	CW-	pH
10-11 / 21:30	Discharge	.02	<.001		
22:00	"	0	<.001		
22:30	"	0	<.001		
23:00	"	0	<.001		
23:30	"	.03	<.001		
24:00	"	.03	<.001		
00:30	"	.04	.001		
01:00	"	0	<.001		
01:30	"	.05	.001		
02:00	"	.03	<.001		
02:30	"	0	<.001		
03:00	"	0	<.001		
03:30	"	0	<.001		
04:00	"	0	<.001		
04:30	"	0	<.001		
05:00	"	0	<.001		
05:30	"	.04	.001		
06:00	"	0	<.001		
06:30	"	0	<.001		
07:30	"	0	<.001		
	STREAM	.95	.028	.6	11.39
	FEED	.98	.028	.5	11.42
	BARREN	.02	<.001	1.0	11.55
08:00	DISCHARGE	.02	<.001		
08:30	"	.04	.001		

DATE/TIME	SAMPLE	PPM	AUT	CN	PH	REMARKS
0900	DISCHARGE	∅	1.001			
0930	"	∅	1.001			
1000	"	∅	1.001			
1030	"	∅	1.001			TURNEO OFF Zn
1100	"	∅	1.001			
1130	"	∅	1.001			
1200	"	∅	1.001			
1230	"	∅	1.001			
1300	"	∅	1.001			Zn BACK ON
1330	"	∅	1.001			
1400	"	∅	1.001			
1430	"	∅	1.001			
1500	"	∅	1.001			
1530	"	∅	1.001			
1600	∅	∅	1.001			
1630	∅	∅	1.001			
1700	∅	∅	1.001			Zn Empty & TURNEO OFF
1730	"	∅	1.001			
18:00	"	∅	< 0.01			
18:15	Barren	∅	1.001	0.9	11.18	
"	Feed	.99	.028	0.6	11.38	
"	stream	.92	.027	0.5	11.52	
"	return rate	40 ⁺	GPM			
18:30	Discharge	∅	1.001			
19:00	"	∅	1.001			
19:30	"	∅	1.001			

Date/Time

Sample Discharge

DRM

for 21/ CD-10N

10-12/20:00

20:30

21:00

21:30

22:00

22:30

23:00

23:30

24:00

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Zn on

Zn off

Zn on

Zn off

Zn on

Zn off

Date Time	Sample	PPM	Au Oz/t	CN-	pH	Remarks
0910	DISCHARGE	∅	2.001			
0915	STREAM	1.06	.030	6	11.45	
@ 11	LEED	.98	.028	.5	11.30	
"	BARREN	∅	2.001	1.0	11.15	
0930	DISCHARGE	∅	2.001			
1000	"	∅	2.001			
1030	"	∅	2.001			
1100	"	∅	2.001			Zn BACK ON
1130	"	∅	2.001			
1200	"	∅	2.001			
1230	"	∅	2.001			
1300	"	∅	2.001			
1330	"	∅	2.001			Zn off
1400	"	∅	2.001			
1430	"	∅	2.001			
1500	"	∅	2.001			
1530	"	∅	2.001			Zn on
1600	"	∅	2.001			Zn off
1630	"	∅	2.001			
1700	"	∅	2.001			
1730	"	∅	2.001			
1800	"	∅	2.001			
1830	"	∅	2.001			
19:00	"	.03	2.001			Zn ON
1930	"	∅	2.001			

Date/Time	Sample	PPM Au	Oz/lit	CN-	pH	Remarks
20:00	"	∅	4.001			
20:30	"	∅	4.001			
21:00	"	∅	4.001			
21:30	"	∅	4.001			
22:00	"	.06	202			
22:30	"	.04	1.001			
23:00	"	.01	4.001			
23:30	"	∅	4.001			
24:00	"	∅	4.001			
00:30	"	∅	4.001			
01:00	"	∅	4.001			
01:30	"	∅	4.001			
02:00	"	∅	4.001			
02:30	"	∅	4.001			
03:00	"	∅	4.001			
03:30	"	∅	4.001			
04:00	"	∅	4.001			
04:30	"	∅	4.001			
05:00	"	∅	4.001			
05:30	"	.0	4.001			
06:00	"	.0	4.001			

Date Time	Sample	PPM Au	Out	CN-	pH	Remarks
12:20	"	0	4,001			
1:40	"	.05	.001			
3:20	"	0	4,001			
3:40	"	0	4,001			
4:20	"	.13	.003			
4:40	"	.06	.002			
5:20	"	.13	.003			
5:40	"	0	4,001			
6:20	"	0	4,001			
6:05	"	.06	.002			
7:00	"	0	4,001			
7:30	"	.02	4,001			
10/16	Discharge					
10:00	"	0	4,001			
10:30	"	0	4,001			
11:00	"	.30	.009			
11:30	"	.33	.010			
12:00	"	over 3.0				No CN- addition
12:25	"	0	4,001			
12:30	"	0	4,001			
1:00	"	0	4,001			
1:30	"	0	4,001			
2:00	"	0	4,001			

Date/Time	Sample	PPM ^{Au}	O ₂ /l	CN-	pH	Remarks
10-16 2:30	"	∅	2.001			
3:00	"	.20	.006			
3:30	"	∅	2.001			
4:00	"	∅	2.001			
4:30	"	∅	2.001			
5:00	"	∅	2.001			
5:30	"	∅	2.001			
6:00	"	∅	2.001			Zn off
18:15	Barren	.09	.003	0.8	11.06	
	Feed	.99	.029	0.5	11.62	
	stream	.93	.027	0.5	11.66	
	Return rate	45 ⁺	GPM			
18:30	Discharge	∅	2.001			
19:00	"	∅	2.001			
19:30	"	∅	2.001			
20:00	"	.06	.002			Zn on
20:30	"	∅	2.001			Zn off
21:00	"	∅	2.001			
21:30	"	.05	.001			Zn on
22:00	"	∅	2.001			
22:30	"	∅	2.001			Zn off
23:00	"	∅	2.001			
23:30	"	∅	2.001			
24:00	"	.03	2.001			Zn on
00:30	"	∅	2.001			

Date / Time	Sample	PPM	Au	0211	CN-	pH	Remarks
10/16 / 01:00	Discharge	∅	<.001				Zn off
01:30	"	∅	<.001				
02:00	"	.09	.003				Zn on
02:30	"	∅	2.001				
03:00	"	∅	4.001				
03:30	"	∅	2.001				
04:00	"	∅	2.001				Zn off
04:30	"	∅	2.001				
05:00	"	.07	.002				Zn on
05:30	"	∅	<.001				
06:16	"	∅	2.001				
07:00	"	∅	2.001				
07:30	"	.13	.004				
08:00	"	.03	2.001				
08:30	STREAM	1.07	.031	.5	11.7		
	FEED	1.07	.031	.5	11.65		
	BARREN	.01	2.001	.8	11.05		
08:30	Discharge	∅	2.001				
09:00	"	∅	2.001				
09:30	"	.03	2.001				
10:00	"	.04	2.001				
10:30	"	∅	2.001				
11:00	"	∅	2.001				
11:30	"	∅	2.001				
12:00	"	∅	2.001				

Date/Time	Sample	PPM Au	O ₂ /t	CN-	pH	Remarks
12:30	DISCHARGE	.01	L.001			
13:09	"	∅	L.001			
13:30	"	∅	L.001			
14:00	"	.11	.003			
14:30	"	.12	.003			
14:45	"	∅	L.001			
15:27	"	.45	.013			
15:40	"	.17	.005			
16:10	"	.04	.001			
16:40	"	.58	.017			
17:00	"	∅	L.001			