Periodic

Compliance

Reports

(H_2O)

D3

bcc: R. Comer, Esq.
R. Marcus
C. Dungey
M. Staub
N. Mathis
D. Kennedy, Esq.

FILE: 3.13.4
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March 29, 1994 File: 2.45.5.2

ASARCO Globe Plant
495 East 51 Ave.
Denver Colorado 80216
296-5900

Ms. Jill Graham
Metro Wastewater Reclaimation District
Industrial Waste/Pretreatment
6450 York Street
Denver Colorado 80229-7499

Re: Six Month Sanitary Sewer Self-Monitoring

Dear Ms. Graham

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 03/23/94 1345 - 03/24/94 1345

TOTAL FLOW FOR 24 HR: 9380 gallons
TOTAL VOLUME COLLECTED: 5.0 liters
NUMBER OF SAMPLES: 13

Arsenic (As)	0.007	(ppm)
Cadmium (Cd)	0.03	(ppm)
Copper (Cu)	0.01	(ppm)
Lead (Pb)	<0.05	(ppm)
Nickel (Ni)	<0.025	(ppm)
Selenoum (Se)	0.018	(ppm)
Zinc (Zn)	0.11	(ppm)

Grab Sample Date/Time: 03/24/94 1350

pH	7.05	(units)

Flow Data Date/Time: 03/24/94 1345 - 03/25/94 1345

TOTAL FLOW: 9200 gallons
MAX FLOW: 0.60 gallons/sec
AVERAGE FLOW: 0.106 gallons/sec

Taie Li
Unit Manager

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW COMPOSITE SAMPLING DATA

Sampling Date Started 3/23/94

Sampling time Started 1345

Sampling Date Ended 3/24/94

Sampling Time Ended 1345

Total Flow For 24 hour Period 9380 gallons

Number of Tanks Discharged 1

Number Of Samples Collected 13

Total Volume Collected 5.0 liters

Flow composite sample was collected using an ISCO 3710 sampler and a 2870 Flow Meter.

Total Metals:(ppm)

Arsenic	(As)	0.007	ppm
Cadmium	(Cd)	0.03	ppm
Copper	(Cu)	0.01	ppm
Lead	(Pb)	<0.05	ppm
Nickel	(Ni)	<0.025	ppm
Selenium	(Se)	0.018	ppm
Zinc	(Zn)	0.11	ppm
pH		7.05	units

Date pH Grab Sample Taken: 3/24/94

Time pH Grab Sample Taken: 1350

Sampled By: Wayne Rolle

Reviewed By: DC Lung

Date Reviewed: 3-29-94

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW DATA

Sample Date Started 3/24/94

Sample Time Started 1345

Sample Date Ended 3/25/94

Sample Time Ended 1345

Total Flow Over 24 hour Period 9200 gallons

Maximum Flow Rate during That 24 Hours 0.60 gallons/sec

Average Daily Flow Rate 0.106 gallons/sec

Sampling Performed By : Wayne Rolle

Reviewed By: DC Lux

Date Reviewed : 3-29-94

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 03/28/94 14:12

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AS PPM	CD PPM	CU PPM	NI PPM	PB PPM	SE PPM	ZN PPM	pH
208-003-94	03/24/94	GLOBE	0.007	0.03	0.01	<0.025	<0.05	0.018	0.11	
208-004-94	03/24/94	GLOBE								7.05

EDIT

APPROVED NIC

DATE 3-29-94

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208-003-94 Description: Sewer Comp

Sample I.D: Date Submitted: 3/24/94

Parameter	Value	Units	Method	Date Completed	Chemist
Cd	0.03	ppm	AA	3/28	WR
Cu	0.01				
Pb	<0.05				
Ni	<0.025				
Zn	0.11				
As	0.007		hydride		
Se	0.018				

DCL

Approved

LC

ASARCO, Incorporated

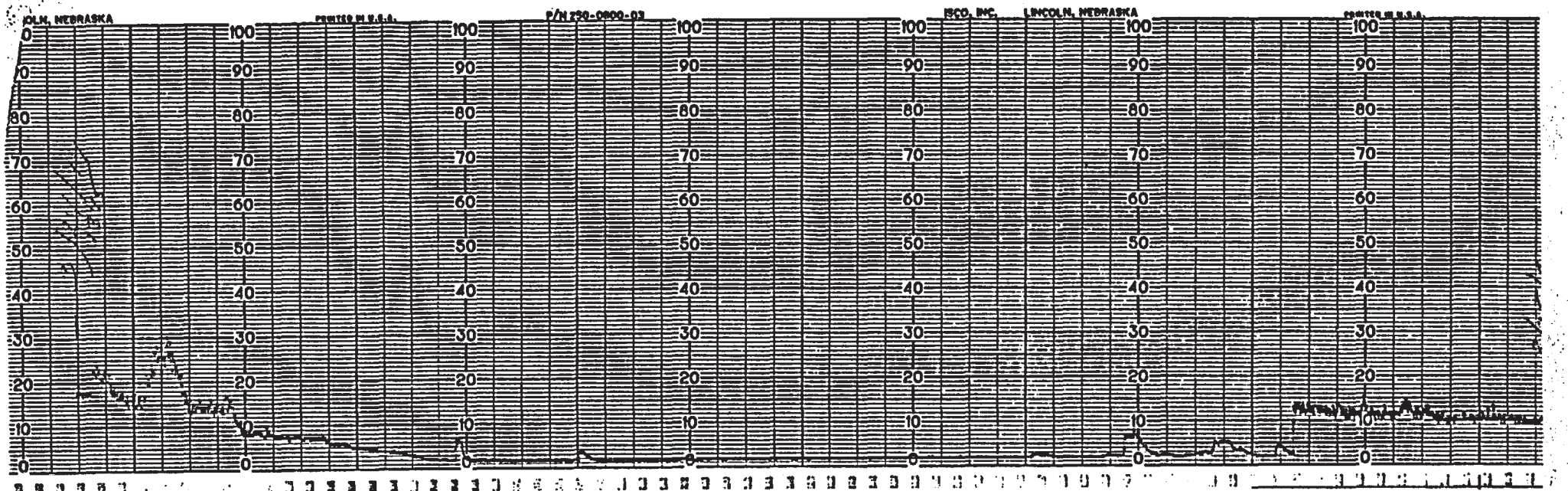
Analytical Laboratory Results

Lab No: 208-004-94 Description: Sewer Grab

Sample I.D: Date Submitted: 3/24/94

Parameter	Value	Units	Method	Date Completed	Chemist
pH	7.05	pH	meter	3/24	WK

Approved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P/N 250-0800-03
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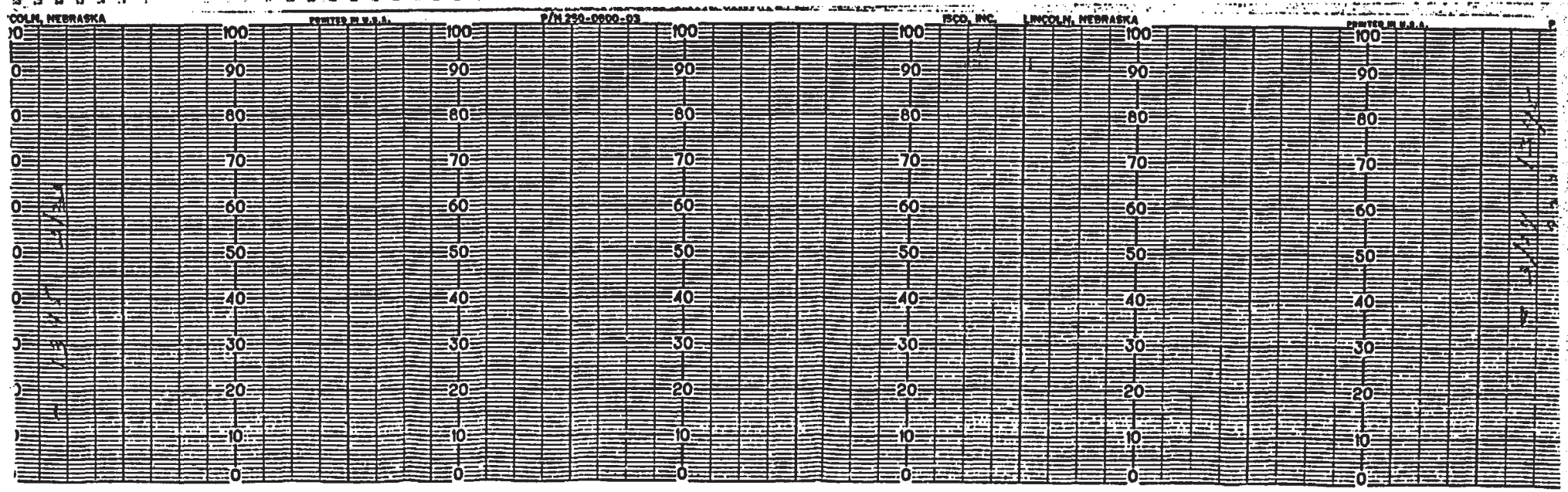
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January 12, 1993 File: 2.45.5.2

ASARCO Globe Plant
495 East 51 Ave.
Denver Colorado 80216
296-5900

Mr. T. Rodriguez
Denver North Side Treatment
5100 North Marion
Denver Colorado 80216

Re: Six Month Sanitary Sewer Self-Monitoring

Dear Mr. Rodriguez,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 1/05/93 1110 - 1/06/93 1130

TOTAL FLOW FOR 24 HR: 21560 gallons
TOTAL VOLUME COLLECTED: 7.2 liters
NUMBER OF SAMPLES: 29

Cadmium (Cd)	0.08	(ppm)
Lead (Pb)	<0.05	(ppm)
Chromium (Cr)	<0.05	(ppm)
Copper (Cu)	0.01	(ppm)
Nickel (Ni)	<0.025	(ppm)
Zinc (Zn)	0.09	(ppm)
Silver (Ag)	<0.01	(ppm)

Grab Sample Date/Time: 1/05/93 1110

Cyanide (CN-)	0.0018	(ppm)
pH	6.4	(pH)

Flow Data:

STARTING DATE: 01/06/93 STARTING TIME: 1145
ENDING DATE: 01/07/93 ENDING TIME: 1130

TOTAL FLOW: 19670 gallons
MAX FLOW: 0.76 gallons/sec
AVERAGE FLOW: 0.228 gallons/sec

Taie Li
Taie Li
Unit Manager

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW COMPOSITE SAMPLING DATA

Sampling Date Started 1/5/93

Sampling time Started 1110

Sampling Date Ended 1/6/93

Sampling Time Ended 1130

Total Flow For 24 hour Period 21560 gallons

Number of Tank Discharged 1½

Number Of Samples Collected 29

Total Volume Collected 7.2 liters

Flow composite sample was collected using a ISCO 3710 sampler and 2870 Flow Meter.

This Sampling event is:

Bi-Monthly Cadmium ____
Six Month Metals ✓

Total Metals: (ppm)

Cadmium	(Cd)	0.08
Lead	(Pb)	<0.05
Chromium	(Cr)	<0.05
Copper	(Cu)	0.01
Nickel	(Ni)	<0.025
Zinc	(Zn)	0.09
Silver	(Ag)	<0.01

Date Grab Samples Taken: 1/5/92 pH 6.4

Time Grab Samples Taken: 1110 CN- 0.0018 mg/L

Sampled By: Warner Rolle

Reviewed By: Al Luz

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW DATA

Sample Date Started 1/6/93

Sample Time Started 1145

Sample Date Ended 1/7/93

Sample Time Ended 1130

Total Flow Over 24 hour Period 19670 gallons

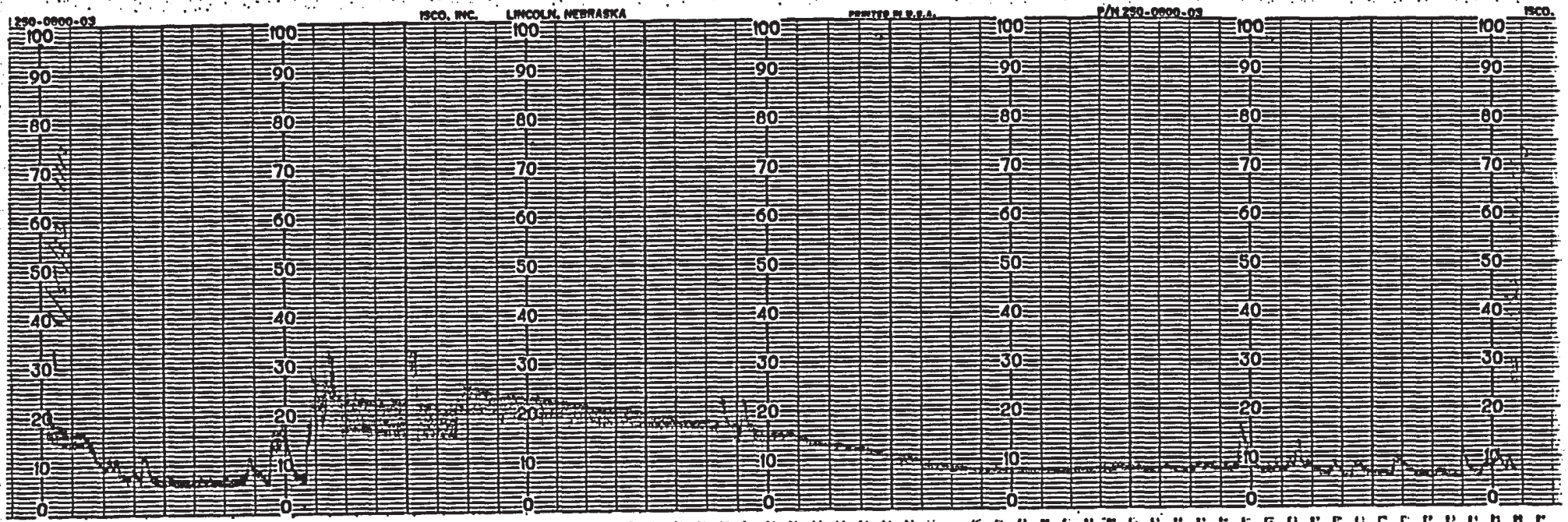
Maximum Flow Rate during That 24 Hours 0.76 gallons/sec

Average Daily Flow Rate 0.228 gallons/sec

Sampling Performed By : Wayne Rolle

Reviewed By: DC Luz

Date Reviewed : 1-12-93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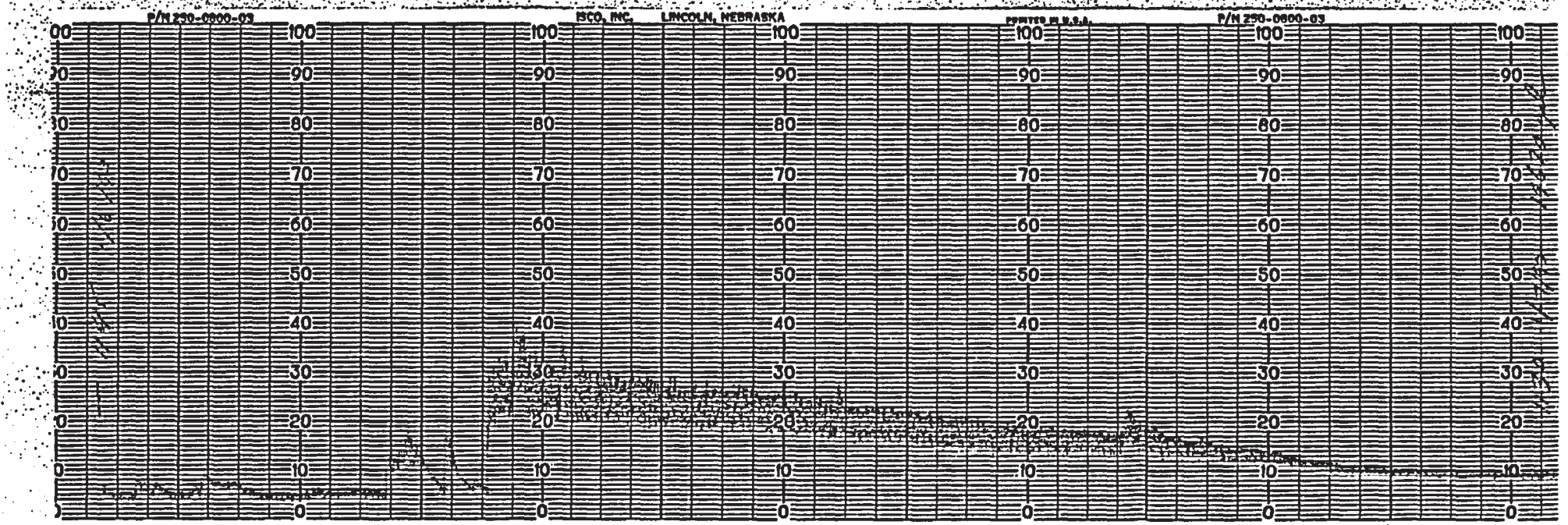
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P/N 250-0600-03

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 01/11/93 12:17

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AG PPM	CD PPM	CR PPM	CU PPM	NI PPM	PB PPM	ZN PPM	CN PPM	pH
208-001-93	01/05/93	GLOBE								0.0018	6.40
208-002-93	01/06/93	GLOBE	<0.01	0.08	<0.05	0.01	<0.025	<0.05	0.09		

EDIT
APPROVED JCL
DATE 1-12-93

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208-001-93 Description: Sewer Grab

Sample I.D: Globe Date Submitted: 1/5/92

Parameter	Value	Units	Method	Date Completed	Chemist
pH	6.4	pH	meter	1/5/92	WR
CN-	1.8	ug	Dist	1/6/93	WR

Approved

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 205-012-93 Description: Sewer Comp

Sample I.D: Globe Date Submitted: 1/6/93

Parameter	Value	Units	Method	Date Completed	Chemist
Cd	0.08	ppm	AA	1/11/93	WR
Cu	0.01				
Cr	<.05				
Ag	<.01				
Ni	<.025				
Pb	<.05				
Zn	0.09				

Approved

January 8, 1994 File: 2.45.5.2

ASARCO Globe Plant
495 East 51 Ave.
Denver Colorado 80216
296-5900

Mr. T. Rodriguez
Denver North Side Treatment
5100 North Marion
Denver Colorado 80216

Re: Bi-monthly Sanitary Sewer Self-Monitoring

Dear Mr. Rodriguez,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 01/24/93 0900 - 01/25/93 0900

TOTAL FLOW FOR 24 HR: 7230 gallons
TOTAL VOLUME COLLECTED: 3.4 liters
NUMBER OF SAMPLES: 10

Cadmium (Cd)	0.04	(ppm)
Lead (Pb)	<0.05	(ppm)
Chromium (Cr)	<0.05	(ppm)
Copper (Cu)	<0.01	(ppm)
Nickel (Ni)	<0.025	(ppm)
Zinc (Zn)	0.10	(ppm)
Silver (Ag)	<0.01	(ppm)

Grab Sample Date/Time: 01/25/93 0905

Cyanide (CN-)	0.0027	(ppm)
pH	6.95	(pH)

Flow Data Date/Time: 01/25/93 0900 - 01/26/93 0900

TOTAL FLOW: 9250 gallons
MAX FLOW: 0.64 gallons/sec
AVERAGE FLOW: 0.107 gallons/sec

Taie Li
Taie Li
Unit Manager

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW DATA

Sample Date Started 1/25/94

Sample Time Started 0900

Sample Date Ended 1/26/94

Sample Time Ended 0900

Total Flow Over 24 hour Period 9250 gallons

Maximum Flow Rate during That 24 Hours 0.64 gallons/sec

Average Daily Flow Rate 0.107 gallons/sec

Sampling Performed By : Wayne Rolle

Reviewed By: D C Lux

Date Reviewed : 2-8-94

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW COMPOSITE SAMPLING DATA

Sampling Date Started 1/24/94

Sampling time Started 0900

Sampling Date Ended 1/25/94

Sampling Time Ended 0900

Total Flow For 24 hour Period 7230 gallons

Number of Tank Discharged 1

Number Of Samples Collected 10

Total Volume Collected 3.4 liters

Flow composite sample was collected using a ISCO 3710 sampler and 2870 Flow Meter.

This Sampling event is:

Bi-Monthly Cadmium ____
Six Month Metals ✓

Total Metals: (ppm)

Cadmium	(Cd)	0.04
Lead	(Pb)	<0.01
Chromium	(Cr)	<0.05
Copper	(Cu)	~~<0.025~~ <0.01
Nickel	(Ni)	<0.025
Zinc	(Zn)	0.10
Silver	(Ag)	<0.01

Date Grab Samples Taken: 1/25/94 pH 6.95

Time Grab Samples Taken: 0905 CN- 2.7 ug/l

Sampled By: Warren Ralle

Reviewed By: D C Lux

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208-007-94 Description: Sewer Grab

Sample I.D: Date Submitted: 1/25/94

Parameter	Value	Units	Method	Date Completed	Chemist
CN-	2.7	ug/L	Dist	2/7/94	WR
pH	6.95	pH	meter	1/25/94.	WR

DCZ

Approved

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208-002-94 Description: Sewer Comp

Sample I.D: _____ Date Submitted: 1/25/94

Parameter	Value	Units	Method	Date Completed	Chemist
Cd	0.04	ppm	AA	1/25	WM
Cu	<0.01				
Cr	<0.05				
Ni	<0.025				
Ag	<0.01				
Zn	0.10				
Pb	<0.05				

dCZ

Approved

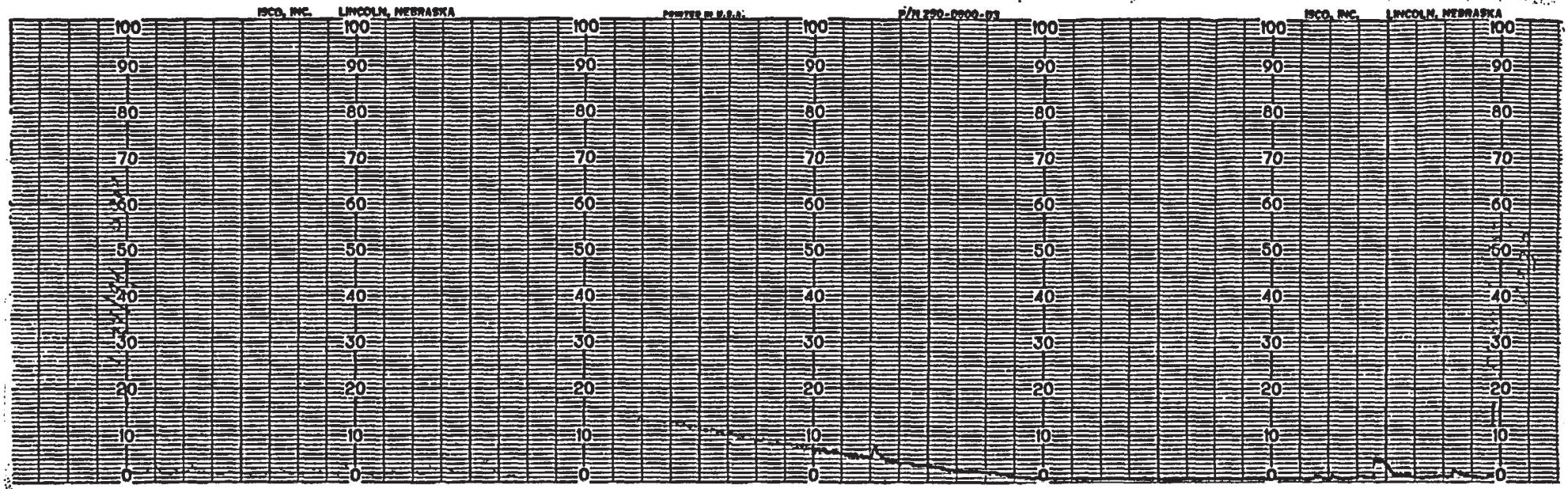
ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 02/08/94 08:12

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AG PPM	CD PPM	CR PPM	CU PPM	NI PPM	PB PPM	ZN PPM	CN PPM	pH
208-001-94	01/25/94	GLOBE								0.0027	6.95
208-002-94	01/25/94	GLOBE	<0.01	0.04	<0.05	<0.01	<0.025	<0.05	0.10		

EDIT
APPROVED DCZ
DATE 2-8-94.

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 02/08/94 08:19

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AG PPM	CD PPM	CR PPM	CU PPM	NI PPM	PB PPM	ZN PPM	CN PPM	pH
207-003-93	06/21/93	CITY & COUNTY	<0.01	0.05	<0.05	<0.01	<0.025	<0.05	0.15		
207-004-93	06/21/93	CITY & COUNTY								0.016	7.10
208-007-93	07/15/93	GLOBE								0.005	6.90
208-008-93	07/15/93	GLOBE	<0.01	0.03	<0.05	0.01	<0.025	<0.05	0.09		
209-009-93	08/11/93	METRO								0.009	
209-010-93	08/11/93	METRO	<0.01	0.01	<0.05	0.01	<0.025	<0.05	0.05		
209-012-93	08/11/93	METRO	<0.01	0.07	<0.05	0.04	<0.025	0.05	0.15		
209-011-93	08/13/93	METRO								0.010	
208-009-93	09/09/93	GLOBE								0.0013	6.65
208-010-93	09/09/93	GLOBE	<0.01	0.16	<0.05	0.02	<0.025	<0.05	0.41		
207-005-93	09/23/93	CITY & COUNTY								0.008	7.21
207-006-93	09/23/93	CITY & COUNTY	<0.01	0.02	<0.05	<0.01	<0.025	<0.05	0.11		
208-011-93	11/02/93	GLOBE								0.005	7.20
208-012-93	11/02/93	GLOBE	<0.01	0.04	<0.05	<0.01	<0.025	<0.05	0.14		
207-007-93	12/21/93	CITY & COUNTY	<0.01	0.05	<0.05	0.02	<0.025	<0.05	0.26		
208-001-94	01/25/94	GLOBE								0.0027	6.95
208-002-94	01/25/94	GLOBE	<0.01	0.04	<0.05	<0.01	<0.025	<0.05	0.10		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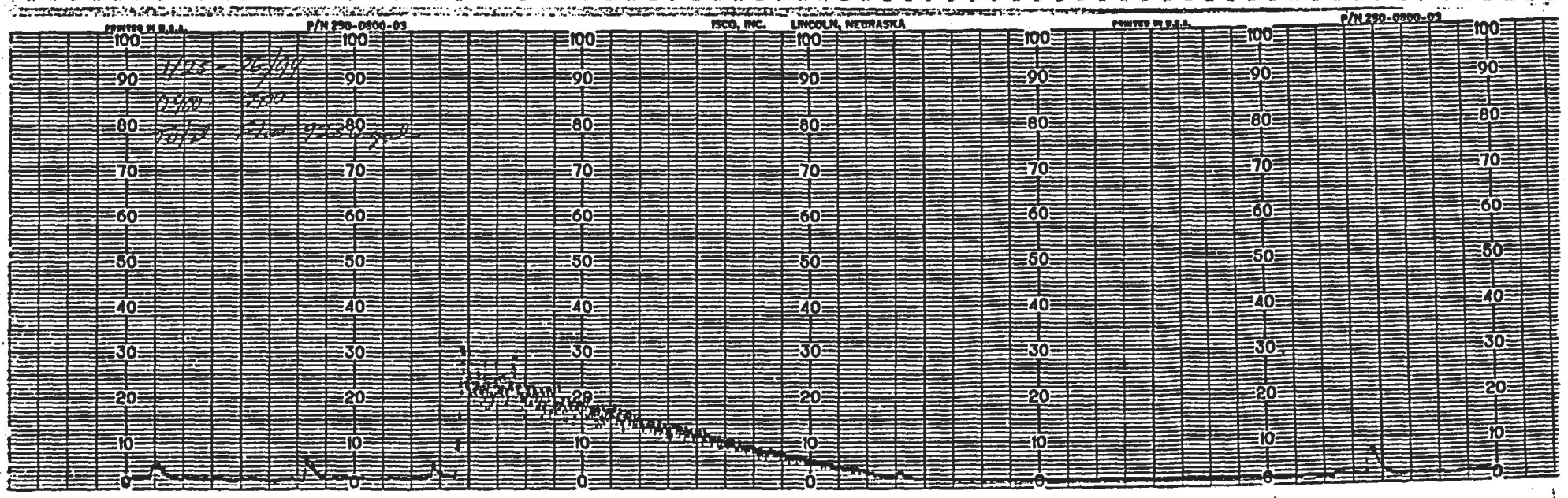
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November 23, 1993 File: 2.45.5.2

ASARCO Globe Plant
495 East 51 Ave.
Denver Colorado 80216
296-5900

Mr. T. Rodriguez
Denver North Side Treatment
5100 North Marion
Denver Colorado 80216

Re: Bi-monthly Sanitary Sewer Self-Monitoring

Dear Mr. Rodriguez,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 11/01/93 0912 - 11/02/93 0912

TOTAL FLOW FOR 24 HR: 13300 gallons
TOTAL VOLUME COLLECTED: 6.5 liters
NUMBER OF SAMPLES: 18

Cadmium (Cd)	0.04	(ppm)
Lead (Pb)	<0.05	(ppm)
Chromium (Cr)	<0.05	(ppm)
Copper (Cu)	<0.01	(ppm)
Nickel (Ni)	<0.025	(ppm)
Zinc (Zn)	0.14	(ppm)
Silver (Ag)	<0.01	(ppm)

Grab Sample Date/Time: 11/02/93 0920

Cyanide (CN-)	0.005	(ppm)
pH	7.2	(pH)

Flow Data:

STARTING DATE: 11/02/93 STARTING TIME: 0920
ENDING DATE: 11/03/93 ENDING TIME: 1005

TOTAL FLOW: 9530 gallons
MAX FLOW: 0.67 gallons/sec
AVERAGE FLOW: 0.107 gallons/sec

Taie Li

Taie Li
Unit Manager

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW COMPOSITE SAMPLING DATA

Sampling Date Started ~~11/2/93~~ 11/1/93

Sampling time Started 0912

Sampling Date Ended 11/2/93

Sampling Time Ended 0912

Total Flow For 24 hour Period 13300 gallons

Number of Tank Discharged 2

Number Of Samples Collected 18

Total Volume Collected 6.5 liters

Flow composite sample was collected using a ISCO 3710 sampler and 2870 Flow Meter.

This Sampling event is:

Bi-Monthly Cadmium ✓
Six Month Metals ____

Total Metals: (ppm)

Cadmium	(Cd)	0.04
Lead	(Pb)	<0.05
Chromium	(Cr)	<0.05
Copper	(Cu)	<0.01
Nickel	(Ni)	<0.025
Zinc	(Zn)	0.14
Silver	(Ag)	<0.01

Date Grab Samples Taken: 11/2/93 pH 7.2

Time Grab Samples Taken: 0920 CN- 0.005 mg/L

Sampled By: [illegible]

Reviewed By: DI Lux

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW DATA

Sample Date Started 11/2/93

Sample Time Started 0920

Sample Date Ended 11/3/93

Sample Time Ended 1005

Total Flow Over 24 hour Period 9530 gallons

Maximum Flow Rate during That 24 Hours 0.67 gallons/sec

Average Daily Flow Rate 0.107 gallons/sec

Sampling Performed By : [illegible]

Reviewed By: [illegible]

Date Reviewed : 11-23-93

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 11/23/93 07:27

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AG PPM	CD PPM	CR PPM	CU PPM	NI PPM	PB PPM	ZN PPM	CN PPM	pH
208-011-93	11/02/93	GLOBE								0.005	7.20
208-012-93	11/02/93	GLOBE	<0.01	0.04	<0.05	<0.01	<0.025	<0.05	0.14		

EDIT

APPROVED NH

DATE 11-23-93

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208-011-93 Description: Sewer Sample

Sample I.D: 001 Grab Date Submitted: 11/2/93

Parameter	Value	Units	Method	Date Completed	Chemist
pH	7.2	pH	meter	11/2/93	WR
CN^-	0.005	mg/L	Distillation	11/2/93	↓

NIL

Approved

ASARCO, Incorporated

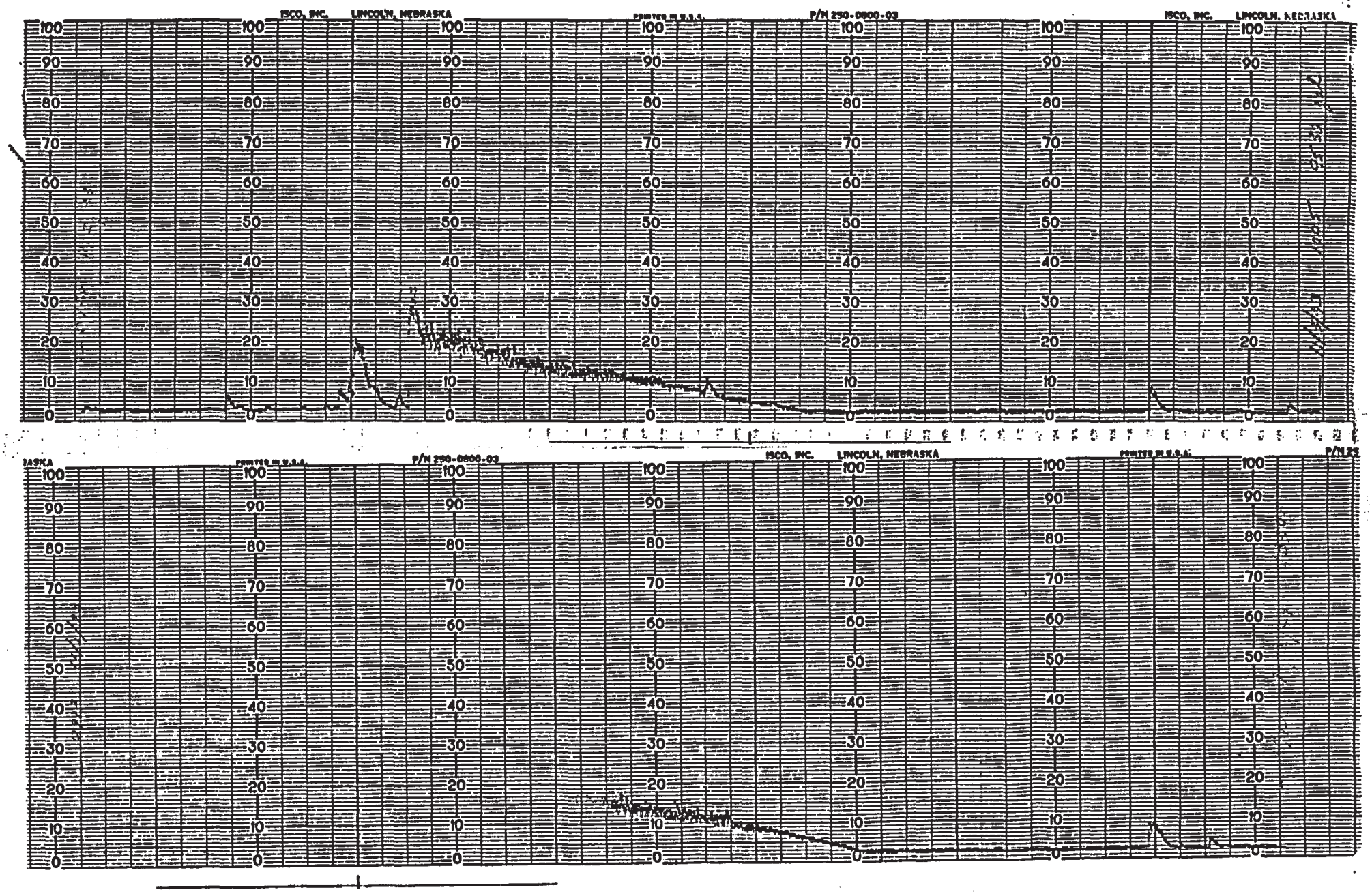
Analytical Laboratory Results

Lab No: 208-012-43 Description: Sewer Sample

Sample I.D: 001 Comp Date Submitted: 11/2/93

arameter	Value	Units	Method	Date Completed	Chemist
Cd	0.04	ppm	AA	11/9	WR
Pb	<.05				
Cr	<0.05				
Cu	<0.01				
Ni	<0.025				
Zn	0.14				
Ag	<.01				

Approved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ASARCO INCORPORATED
Environmental Laboratory

CHAIN OF CUSTODY RECORD

GLOBE PLANT
495 E. 51ST AVENUE
DENVER, CO 80216

PROJECT NAME: [illegible]

SAMPLERS: (Signature) Wayne [illegible]

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 liter UF/Nitr	1 liter UF/Nitr					REMARKS
	11/1/93	0920		✓	001	1	✓						
	11/1/93	0900-0920	✓		001	1		✓					

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Wayne [illegible]	11/2/93 1000	[illegible]			
[illegible]	11/2/93 1002	[illegible]			

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks

Distribution: Original Accompanies Shipment; First Copy to Coordinator Field Files; Second Copy to Representative of Inspected Facility

Split Samples: ☐ Accepted ☐ Declined _____ Signature

AG-001010

September 10, 1993 File: 2.45.5.2

ASARCO Globe Plant
495 East 51 Ave.
Denver Colorado 80216
296-5900

Mr. T. Rodriguez
Denver North Side Treatment
5100 North Marion
Denver Colorado 80216

Re: Bi-monthly Sanitary Sewer Self-Monitoring

Dear Mr. Rodriguez,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 9/08/93 1200 - 9/09/93 1200

TOTAL FLOW FOR 24 HR: 16180 gallons
TOTAL VOLUME COLLECTED: 5.7 liters
NUMBER OF SAMPLES: 28

Cadmium (Cd)	0.16	(ppm)
Lead (Pb)	<0.05	(ppm)
Chromium (Cr)	<0.05	(ppm)
Copper (Cu)	0.02	(ppm)
Nickel (Ni)	<0.025	(ppm)
Zinc (Zn)	0.41	(ppm)
Silver (Ag)	<0.01	(ppm)

Grab Sample Date/Time: 9/09/93 1200

Cyanide (CN-)	0.0013	(ppm)
pH	6.65	(pH)

Flow Data:

STARTING DATE: 09/09/93 STARTING TIME: 1200
ENDING DATE: 09/10/93 ENDING TIME: 1200

TOTAL FLOW: 8190 gallons
MAX FLOW: 0.42 gallons/sec
AVERAGE FLOW: 0.095 gallons/sec

Taie Li

Taie Li
Unit Manager

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW COMPOSITE SAMPLING DATA

Sampling Date Started 9/8/93

Sampling time Started 1200

Sampling Date Ended 9/9/93

Sampling Time Ended 1200

Total Flow For 24 hour Period 16180 gallons

Number of Tank Discharged 2

Number Of Samples Collected 28

Total Volume Collected 5.7 liters

Flow composite sample was collected using a ISCO 3710 sampler and 2870 Flow Meter.

This Sampling event is:

Bi-Monthly Cadmium ✓
Six Month Metals ____

Total Metals: (ppm)

Cadmium	(Cd)	0.16	ppm
Lead	(Pb)	<.05	
Chromium	(Cr)	<.05	
Copper	(Cu)	0.02	
Nickel	(Ni)	<.025	
Zinc	(Zn)	0.41	
Silver	(Ag)	<.01	

Date Grab Samples Taken: 9/9/93 pH 6.65

Time Grab Samples Taken: 1200 CN- 0.0013 mg/l

Sampled By: Wayne Robb

Reviewed By: D C Lux

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW DATA

Sample Date Started 9/9/93

Sample Time Started 1200

Sample Date Ended 9/10/93

Sample Time Ended 1200

Total Flow Over 24 hour Period 8190 gallons

Maximum Flow Rate during That 24 Hours 0.42 gallons/sec

Average Daily Flow Rate 0.095 gallons/sec

Sampling Performed By : Warren Rolle

Reviewed By: D L Fox

Date Reviewed : 9-10-93

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 09/10/93 11:31

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AG PPM	CD PPM	CR PPM	CU PPM	NI PPM	PB PPM	ZN PPM	CN PPM	pH
208-009-93	09/09/93	GLOBE								0.0013	6.65
208-010-93	09/09/93	GLOBE	<0.01	0.16	<0.05	0.02	<0.025	<0.05	0.41		

EDIT
APPROVED DCL
DATE 9-10-93

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208-009-93 Description: 001 Grab

Sample I.D: ~~20~~ Date Submitted: 9/9/93

Parameter	Value	Units	Method	Date Completed	Chemist
pH	6.65	pH	meter	9/9/93	WR
CN^-	0.0013	mg/L	Dist	9/10/93	WR

DCL

Approved

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208-010-93 Description: 001 Comp

Sample I.D: ~~[illegible]~~ Date Submitted: 9/9/93

Parameter	Value	Units	Method	Date Completed	Chemist
Ag	<0.01	ppm	AA	9/10/93	WR
Cd	0.16				
Cu	0.02				
Cr	<0.05				
Zn	0.41				
Pb	<0.05				
Ni	<0.025				

DLL

Approved

ASARCO INCORPORATED
Environmental Laboratory

CHAIN OF CUSTODY RECORD

GLOBE PLANT
495 E. 51ST AVENUE
DENVER, CO 80216

PROJECT NAME: Bi Monthly Sewer Sampling

SAMPLERS: (Signature) Wayne Ralle

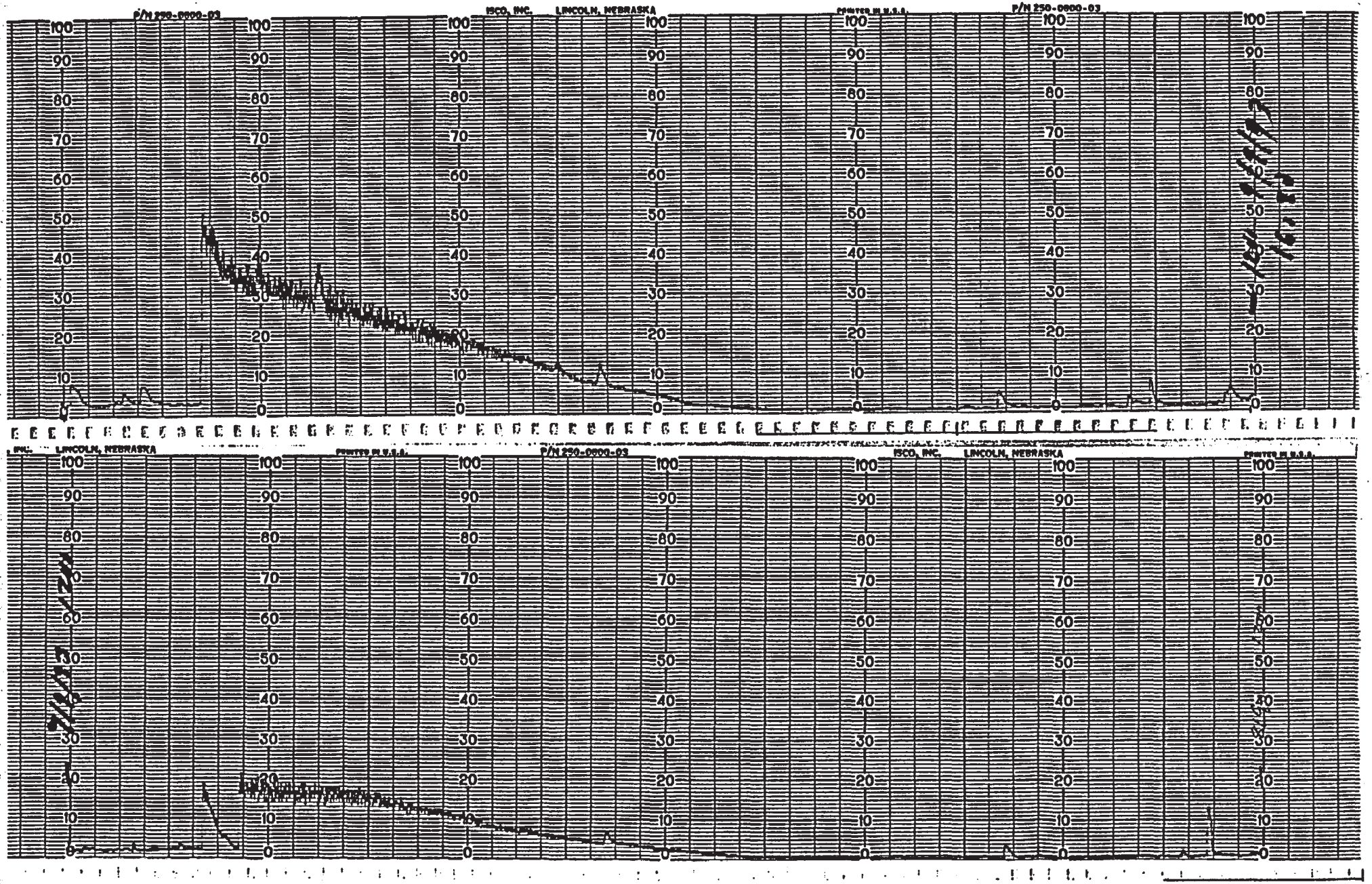
STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 Liter UF/HNO3	1 Liter UF/No OH					REMARKS
	9/9/95	1200		✓	001	1		✓					
	9/8-9/95	12 am 1100	✓		001	1	✓						

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks	

Distribution: Original Accompanies Shipment; First Copy to Coordinator Field Files; Second Copy to Representative of Inspected Facility

Split Samples: ☐ Accepted ☐ Declined _____ Signature

AG-000998


P/N 250-0000-03
ISCO, INC. LINCOLN, NEBRASKA
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P/N 250-0000-03
ISCO, INC. LINCOLN, NEBRASKA
PRINTED IN U.S.A.

May 21, 1993 File: 2.45.5.2

ASARCO Globe Plant
495 East 51 Ave.
Denver Colorado 80216
296-5900

Mr. T. Rodriguez
Denver North Side Treatment
5100 North Marion
Denver Colorado 80216

Re: Bi-monthly Sanitary Sewer Self-Monitoring

Dear Mr. Rodriguez,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 5/12/93 0910 - 5/13/93 0910

TOTAL FLOW FOR 24 HR: 14510 gallons
TOTAL VOLUME COLLECTED: 7.6 liters
NUMBER OF SAMPLES: 20

Cadmium (Cd)	0.05	(ppm)
Lead (Pb)	<0.05	(ppm)
Chromium (Cr)	<0.05	(ppm)
Copper (Cu)	0.01	(ppm)
Nickel (Ni)	<0.025	(ppm)
Zinc (Zn)	0.30	(ppm)
Silver (Ag)	<0.01	(ppm)

Grab Sample Date/Time: 5/13/93 0930

Cyanide (CN-)	0.007	(ppm)
pH	7.43	(pH)

Flow Data:

STARTING DATE: 05/13/93 STARTING TIME: 0930
ENDING DATE: 05/14/93 ENDING TIME: 0930

TOTAL FLOW: 17910 gallons
MAX FLOW: 1.16 gallons/sec
AVERAGE FLOW: 0.207 gallons/sec

Jay Spickelmier

Jay Spickelmier
Assistant to Vice President

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 05/21/93 12:57

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AG PPM	CD PPM	CR PPM	CU PPM	NI PPM	PB PPM	ZN PPM	CN PPM	pH
208-005-93	05/13/93	GLOBE								0.007	7.43
208-006-93	05/13/93	GLOBE	<0.01	0.05	<0.05	0.01	<0.025	<0.05	0.30		

WR
5/21/93

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208-005-93 Description: Sewer Grab

Sample I.D: Date Submitted: 5/14/93

Parameter	Value	Units	Method	Date Completed	Chemist
pH	7.43	pH	Meter	5/14	WR
CN-	.007	mg/L	Dist	5/18	WR

Approved

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208-006-93

Description: Sewer Comp

Sample I.D:

Date Submitted: 5/13/93

Parameter	Value	Units	Method	Date Completed	Chemist
Cd	0.05	ppm	AA	5/21	WR
Cu	0.01				
Cr	<.05				
Pb	<.05				
Ni	<.025				
Zn	0.30				
Ag	<.01				

Approved

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW DATA

Sample Date Started 5/13/93

Sample Time Started 0930

Sample Date Ended 5/14/93

Sample Time Ended 0930

Total Flow Over 24 hour Period 17910 gallons

Maximum Flow Rate during That 24 Hours 1.16 gallons/sec

Average Daily Flow Rate 0.207 gallons/sec

Sampling Performed By : Wayne Rable

Reviewed By: [illegible]

Date Reviewed : 5/24/93

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW COMPOSITE SAMPLING DATA

Sampling Date Started 5/12/93

Sampling time Started 0910

Sampling Date Ended 5/13/93

Sampling Time Ended 0910

Total Flow For 24 hour Period 14510 gallons

Number of Tank Discharged 2

Number Of Samples Collected 20

Total Volume Collected 7.6 liters

Flow composite sample was collected using a ISCO 3710 sampler and 2870 Flow Meter.

This Sampling event is:

Bi-Monthly Cadmium ✓
Six Month Metals ____

Total Metals: (ppm)

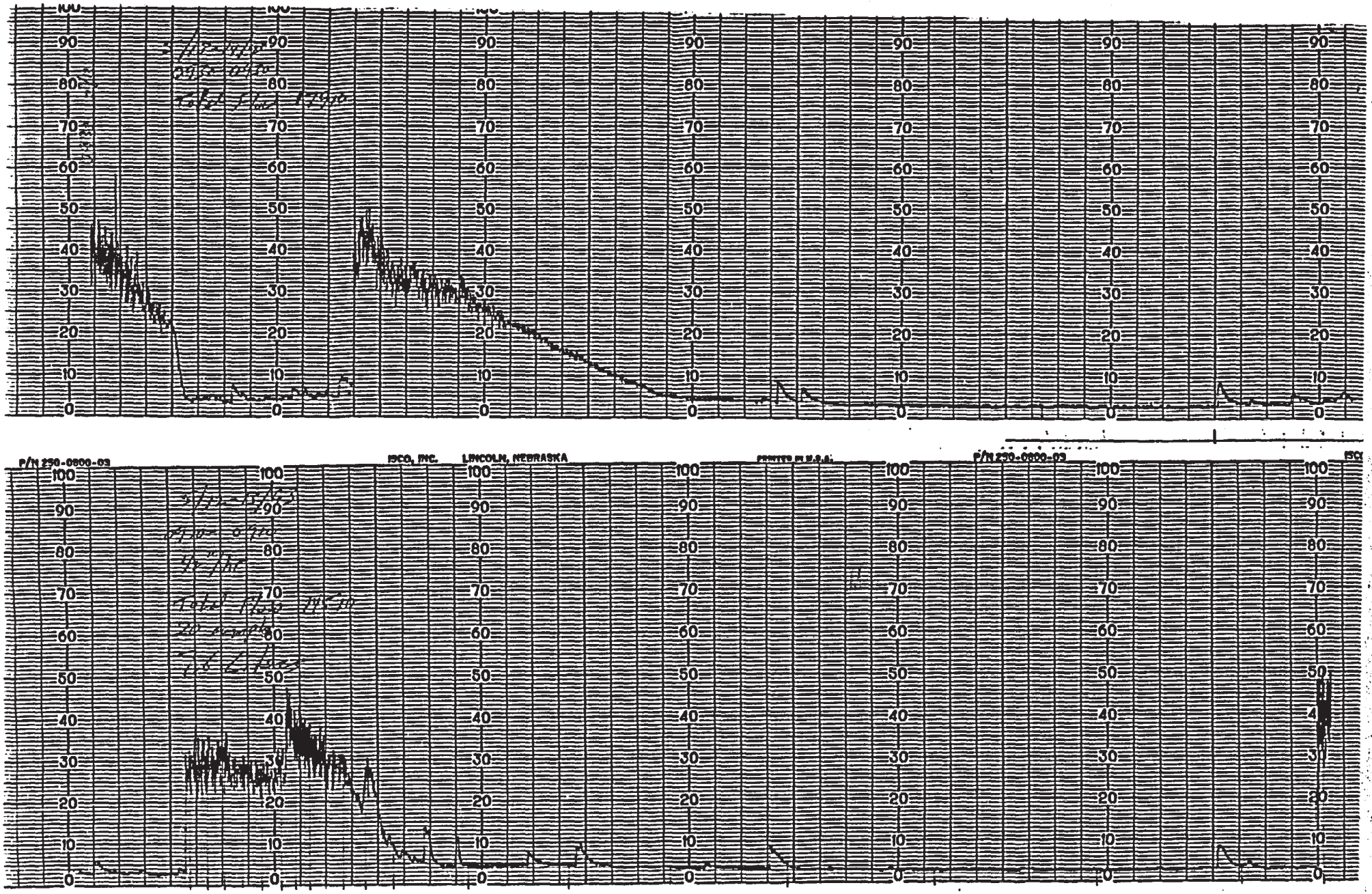
Cadmium	(Cd)	0.05
Lead	(Pb)	<.05
Chromium	(Cr)	<.05
Copper	(Cu)	0.01
Nickel	(Ni)	<.025
Zinc	(Zn)	0.30
Silver	(Ag)	<.01

Date Grab Samples Taken: 5/13/93 pH 7.43

Time Grab Samples Taken: 0930 CN- 0.007 mg/L

Sampled By: [signature]

Reviewed By: [signature]


P/N 250-0800-03
ISCO, INC.
LINCOLN, NEBRASKA
P/N 250-0800-03

April 1, 1993 File: 2.45.5.2

ASARCO Globe Plant
495 East 51 Ave.
Denver Colorado 80216
296-5900

Mr. T. Rodriguez
Denver North Side Treatment
5100 North Marion
Denver Colorado 80216

Re: Bi-monthly Sanitary Sewer Self-Monitoring

Dear Mr. Rodriguez,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 3/16/93 0800 - 3/17/93 0800

TOTAL FLOW FOR 24 HR: 12390 gallons
TOTAL VOLUME COLLECTED: 6.6 liters
NUMBER OF SAMPLES: 17

Cadmium (Cd)	0.06	(ppm)
Lead (Pb)	<0.05	(ppm)
Chromium (Cr)	<0.05	(ppm)
Copper (Cu)	0.01	(ppm)
Nickel (Ni)	<0.025	(ppm)
Zinc (Zn)	0.15	(ppm)
Silver (Ag)	<0.01	(ppm)

Grab Sample Date/Time: 3/17/93 0800

Cyanide (CN-)	0.003	(ppm)
pH	7.1	(pH)

Flow Data:

STARTING DATE: 03/17/93 STARTING TIME: 0800
ENDING DATE: 03/18/93 ENDING TIME: 0800

TOTAL FLOW: 7050 gallons
MAX FLOW: 0.30 gallons/sec
AVERAGE FLOW: 0.082 gallons/sec

Jay Spickelmier

Jay Spickelmier
Assistant to Vice President

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW COMPOSITE SAMPLING DATA

Sampling Date Started 3/16/93

Sampling time Started 0800

Sampling Date Ended 3/17/93

Sampling Time Ended 0800

Total Flow For 24 hour Period 12390 gallons

Number of Tank Discharged 1

Number Of Samples Collected 17

Total Volume Collected 6.6 liters

Flow composite sample was collected using a ISCO 3710 sampler and 2870 Flow Meter.

This Sampling event is:

Bi-Monthly Cadmium ✓
Six Month Metals ____

Total Metals: (ppm)

Cadmium	(Cd)	0.06
Lead	(Pb)	<0.05
Chromium	(Cr)	<0.05
Copper	(Cu)	0.01
Nickel	(Ni)	<.025
Zinc	(Zn)	0.15
Silver	(Ag)	<.01

Date Grab Samples Taken: 3/17/93 pH 7.13

Time Grab Samples Taken: 0800 CN- .007

Sampled By: [illegible]

Reviewed By: ____

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW DATA

Sample Date Started 3/17/93

Sample Time Started 0800

Sample Date Ended 3/18/93

Sample Time Ended 0800

Total Flow Over 24 hour Period 7050 gallons

Maximum Flow Rate during That 24 Hours 0.30 gallons/sec

Average Daily Flow Rate 0.082 gallons/sec

Sampling Performed By : [illegible]

Reviewed By: _____

Date Reviewed : _____

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 04/01/93 10:03

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AG PPM	CD PPM	CR PPM	CU PPM	NI PPM	PB PPM	ZN PPM	CN PPM	pH
208-003-93	03/17/93	GLOBE	<0.01	0.06	<0.05	0.01	<0.025	<0.05	0.15		
208-004-93	03/17/93	GLOBE								0.003	7.13

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208- 013-93 Description: 11 TK 12 TK

Sample I.D: Sewer Comp Globe Date Submitted: 3/31/93

Parameter	Value	Units	Method	Date Completed	Chemist
Tl		ppm	AA	3/31	WR
Zn	0.15				
Fe					
Cd	.06				
Pb	<.05				
Ni	<.025				
Mn					
Cu	0.01				
Ag	<.01				
Cr	<.05				
pH					
S		ppm	I_2-thiosulfate		
As			hydride		
Se					
Na		g/l	AA		
SO_4		g/l	Gravimetric		

Approved

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208- D04-93

Description: 11 TK 12 TK

Sample I.D: Sewer Grab Globe

Date Submitted: 3/31/93

Parameter	Value	Units	Method	Date Completed	Chemist
CN^-	0.003	ppm	AA	3/31	WJL
pH	7.13				
Fe					
Cd					
Pb					
Ni					
Mn					
Cu					
Ag					
Cr					
pH					
S		ppm	I_2-thiosulfate		
As			hydride		
Se					
Na		g/l	AA		
SO_4		g/l	Gravimetric		

Approved

ASARCO INCORPORATED
Environmental Laboratory

CHAIN OF CUSTODY RECORD

GLOBE PLANT
495 E. 51ST AVENUE
DENVER, CO 80216

PROJECT NAME: Bi Monthly Wastewater Sampling

SAMPLERS: (Signature) Wayne Rall

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 Liter US (No Oil)	1 Liter US (No Oil)					REMARKS
001	3/17/93	0800		✓		1	✓						
001	3/16-17/93	0600-0600	✓			1		✓					

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	**Date/Time**	**Received by: (Signature)**	**Relinquished by: (Signature)**	**Date/Time**	**Received by: (Signature)**
Relinquished by: (Signature)	**Date/Time**	**Received for Laboratory by: (Signature)**	**Date/Time**	**Remarks**	

Distribution: Original Accompanies Shipment; First Copy to Coordinator Field Files; Second Copy to Representative of Inspected Facility

Split Samples:
☐ Accepted ☐ Declined _____ Signature

AG- 001093

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW COMPOSITE SAMPLING DATA

Sampling Date Started 3/16/93

Sampling time Started 0800

Sampling Date Ended 3/17/93

Sampling Time Ended 0800

Total Flow For 24 hour Period 12390 gallons

Number of Tank Discharged 1

Number Of Samples Collected 17

Total Volume Collected 6.6 liters

Flow composite sample was collected using a ISCO 3710 sampler and 2870 Flow Meter.

This Sampling event is:

Bi-Monthly Cadmium ✓
Six Month Metals ____

Total Metals: (ppm)

Cadmium	(Cd)	0.06
Lead	(Pb)	<0.05
Chromium	(Cr)	<0.05
Copper	(Cu)	0.01
Nickel	(Ni)	<.025
Zinc	(Zn)	0.15
Silver	(Ag)	<.01

Date Grab Samples Taken: 3/17/93 pH 7.13

Time Grab Samples Taken: 0800 CN- .007

Sampled By: Wayne Roth

Reviewed By: ____

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW DATA

Sample Date Started 3/17/93

Sample Time Started 0800

Sample Date Ended 3/18/93

Sample Time Ended 0800

Total Flow Over 24 hour Period 7050 gallons

Maximum Flow Rate during That 24 Hours 0.30 gallons/sec

Average Daily Flow Rate 0.082 gallons/sec

Sampling Performed By : [illegible]

Reviewed By: _____

Date Reviewed : _____

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 04/01/93 10:03

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AG PPM	CD PPM	CR PPM	CU PPM	NI PPM	PB PPM	ZN PPM	CN PPM	pH
208-003-93	03/17/93	GLOBE	<0.01	0.06	<0.05	0.01	<0.025	<0.05	0.15		
208-004-93	03/17/93	GLOBE								0.003	7.13

April 1, 1993 File: 2.45.5.2

ASARCO Globe Plant
495 East 51 Ave.
Denver Colorado 80216
296-5900

Mr. T. Rodriguez
Denver North Side Treatment
5100 North Marion
Denver Colorado 80216

Re: Bi-monthly Sanitary Sewer Self-Monitoring

Dear Mr. Rodriguez,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 3/16/93 0800 - 3/17/93 0800

TOTAL FLOW FOR 24 HR: 12390 gallons
TOTAL VOLUME COLLECTED: 6.6 liters
NUMBER OF SAMPLES: 17

Cadmium (Cd)	0.06	(ppm)
Lead (Pb)	<0.05	(ppm)
Chromium (Cr)	<0.05	(ppm)
Copper (Cu)	0.01	(ppm)
Nickel (Ni)	<0.025	(ppm)
Zinc (Zn)	0.15	(ppm)
Silver (Ag)	<0.01	(ppm)

Grab Sample Date/Time: 3/17/93 0800

Cyanide (CN-)	0.003	(ppm)
pH	7.1	(pH)

Flow Data:

STARTING DATE: 03/17/93 STARTING TIME: 0800
ENDING DATE: 03/18/93 ENDING TIME: 0800

TOTAL FLOW: 7050 gallons
MAX FLOW: 0.30 gallons/sec
AVERAGE FLOW: 0.082 gallons/sec

Jay Spickelmier

Jay Spickelmier
Assistant to Vice President

Hesco Inc

PRETREATMENT ROUTING RECORD

ACCT. NO. 05-10 ITEM 4 Qtr 1-6-30-93 REC'D BY DATE 7/12/93

TO	✓	NAME	Initial	DATE Rec'd	DATE Comp	COMMENTS
Pretreat. Coordinator			FDB	JUL 14	1993	
Account Represent.				AR	JUL 12 93	
Computer Input			AR	JUL 21 '93		
FILES			AR	AUG 3 '93		
Copy to METRO			AR	AUG 3 '93		
Copy to EPA						
Copy to DIRECTOR						
Copy to USER			AR	AUG 3 '93		
Account Rep.						

WMD 4469

PLEASE FILE

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 01/01/93 TO 06/30/93

COMPANY: ASARCO INCORPORATED
ADDRESS: 495 E 51ST AVE.
DENVER, CO 80216

THE FOLLOWING IS A LISTING OF MONITORING EVENTS AND THE ANALYTICAL RESULTS CURRENTLY ON FILE WITH THE CITY OF DENVER FOR THIS REPORTING PERIOD. THERE IS NO NEED TO REPORT FURTHER ON THESE EVENTS. HOWEVER, YOU DO NEED TO ATTACH RESULTS OF ALL SELF-MONITORING DONE BY YOUR COMPANY DURING THIS REPORTING PERIOD. EACH SELF-MONITORING EVENT MUST INCLUDE THE FOLLOWING INFORMATION:

1. SAMPLE DATE
2. SAMPLE TIME (START AND END TIME FOR A COMPOSITE SAMPLE)
3. SAMPLE TYPE (GRAB, TIME COMPOSITE OR FLOW COMPOSITE)
4. MONITORING LOCATION (AS SPECIFIED IN DISCHARGE PERMIT)
5. REQUIRED FLOW DATA (MEASURED OR ESTIMATED)
   a. AVERAGE DAILY FLOW AT MONITORING LOCATION 12,704.6
   b. MAXIMUM DAILY FLOW AT MONITORING LOCATION 21,560
6. RESULTS OF ALL LAB ANALYSES (MINIMUM REQUIREMENT TO INCLUDE ALL PARAMETERS SPECIFIED BY PERMIT UNDER SELF-MONITORING REQUIREMENTS).

SCE	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Pb	Ni	Ag	Zn	CN-	FLOW
I	01/05/93	FLOW C	001	6.4	0.080	0.000	0.010	0.000	0.000	0.000	0.090	0.001	21560
I	03/16/93	FLOW C	001	7.1	0.060	0.000	0.010	0.000	0.000	0.000	0.150	0.003	12390
I	03/17/93	FLOW	001										7050
D	03/22/93	FLOW C	001	7.5	0.040	0.000	0.060	0.180	0.080	0.000	0.160	0.000	12046
I	05/12/93	FLOW C	001	7.4	0.050	0.000	0.010	0.000	0.000	0.000	0.300	0.007	14510
D	06/21/93	FLOW C	001	7.5	0.040	0.000	0.000	0.110	0.000	0.000	0.260	0.010	8672

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 01/01/93 TO 06/30/93

NON-DISCHARGE WASTES

If your firm disposed of any non-domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information:

[✓] No non-domestic wastes were hauled off-site during this reporting period.

[ ] The following non-domestic wastes were hauled off site during this reporting period:

	Type of waste	Volume	P/U Date	Hauling Firm
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 01/01/93 TO 06/30/93

The following statement(s) must be signed by an authorized representative as defined in section I.6.d of the conditional wastewater discharge permit for this company.

STATEMENT OF ACCURACY AND COMPLETENESS

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature Taie Li

Name Taie Li
(type or print)

Title Unit Manager Date 7/1/93

4.6.5.1

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 07/01/93 TO 12/31/93

COMPANY: ASARCO INCORPORATED
ADDRESS: 495 E 51ST AVE.
DENVER, CO 80216

THE FOLLOWING IS A LISTING OF MONITORING EVENTS AND THE ANALYTICAL RESULTS CURRENTLY ON FILE WITH THE CITY OF DENVER FOR THIS REPORTING PERIOD. THERE IS NO NEED TO REPORT FURTHER ON THESE EVENTS. HOWEVER, YOU DO NEED TO ATTACH RESULTS OF ALL SELF-MONITORING DONE BY YOUR COMPANY DURING THIS REPORTING PERIOD. EACH SELF-MONITORING EVENT MUST INCLUDE THE FOLLOWING INFORMATION:

1. SAMPLE DATE
2. SAMPLE TIME (START AND END TIME FOR A COMPOSITE SAMPLE)
3. SAMPLE TYPE (GRAB, TIME COMPOSITE OR FLOW COMPOSITE)
4. MONITORING LOCATION (AS SPECIFIED IN DISCHARGE PERMIT)
5. REQUIRED FLOW DATA (MEASURED OR ESTIMATED)
   a. AVERAGE DAILY FLOW AT MONITORING LOCATION 11,565
   b. MAXIMUM DAILY FLOW AT MONITORING LOCATION 16,426
6. RESULTS OF ALL LAB ANALYSES (MINIMUM REQUIREMENT TO INCLUDE ALL PARAMETERS SPECIFIED BY PERMIT UNDER SELF-MONITORING REQUIREMENTS).

SCE	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Pb	Ni	Ag	Zn	CN-	FLOW
I	07/14/93	FLOW C	001	6.9	0.030	0.000	0.010	0.000	0.000	0.000	0.090	0.005	12730
I	07/15/93	FLOW C	001										10270
M	08/10/93	FLOW C	001	6.7	0.034	0.000	0.020	0.060	0.020	0.000	0.170		16462
M	08/11/93	FLOW C	001	6.7	0.011	0.000	0.020	0.000	0.000		0.100		6561
M	08/12/93	GRAB	001	6.8									
I	09/08/93	FLOE C	001	6.7	0.160	0.000	0.020	0.000	0.000	0.000	0.410	0.001	16180
I	09/09/93	FLOW	001										8190
D	09/22/93	FLOW C	001	7.4	0.020	0.000	0.000	0.000	0.000	0.000	0.160	0.000	10862
I	11/01/93	FLOW C	001	7.2	0.040	0.000	0.000	0.000	0.000	0.000	0.140	0.005	13300
I	11/02/93	FLOW	001										9520

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 07/01/93 TO 12/31/93

NON-DISCHARGE WASTES

If your firm disposed of any non-domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information:

[ ] No non-domestic wastes were hauled off-site during this reporting period.

[X] The following non-domestic wastes were hauled off site during this reporting period:

	Type of waste	Volume	P/U Date	Hauling Firm
1.	Waste Sulfuric Acid	185 gal.	10/22/93	Dart Trucking Co. Inc.
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 07/01/93 TO 12/31/93

The following statement(s) must be signed by an authorized representative as defined in section I.6.d of the conditional wastewater discharge permit for this company.

STATEMENT OF ACCURACY AND COMPLETENESS

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. I further certify that there are no significant and/or regulated industrial process operations being conducted at this facility which discharge wastewater to the POTW and which are not covered by this report. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature Margaret W. Staub

Name Margaret W. Staub
(type or print)

Title Env. Engineer Date 1/24/94

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 01/01/93 TO 06/30/93

COMPANY: ASARCO INCORPORATED
ADDRESS: 495 E 51ST AVE.
DENVER, CO 80216

THE FOLLOWING IS A LISTING OF MONITORING EVENTS AND THE ANALYTICAL RESULTS CURRENTLY ON FILE WITH THE CITY OF DENVER FOR THIS REPORTING PERIOD. THERE IS NO NEED TO REPORT FURTHER ON THESE EVENTS. HOWEVER, YOU DO NEED TO ATTACH RESULTS OF ALL SELF-MONITORING DONE BY YOUR COMPANY DURING THIS REPORTING PERIOD. EACH SELF-MONITORING EVENT MUST INCLUDE THE FOLLOWING INFORMATION:

1. SAMPLE DATE
2. SAMPLE TIME (START AND END TIME FOR A COMPOSITE SAMPLE)
3. SAMPLE TYPE (GRAB, TIME COMPOSITE OR FLOW COMPOSITE)
4. MONITORING LOCATION (AS SPECIFIED IN DISCHARGE PERMIT)
5. REQUIRED FLOW DATA (MEASURED OR ESTIMATED)
   a. AVERAGE DAILY FLOW AT MONITORING LOCATION
   b. MAXIMUM DAILY FLOW AT MONITORING LOCATION
6. RESULTS OF ALL LAB ANALYSES (MINIMUM REQUIREMENT TO INCLUDE ALL PARAMETERS SPECIFIED BY PERMIT UNDER SELF-MONITORING REQUIREMENTS).

SCR	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Pb	Ni	Ag	Zn	CN-	FLOW
I	01/05/93	FLOW C	001	6.4	0.080	0.000	0.010	0.000	0.000	0.000	0.090	0.001	21560
I	03/16/93	FLOW C	001	7.1	0.060	0.000	0.010	0.000	0.000	0.000	0.150	0.003	12390
I	03/17/93	FLOW	001										7050
D	03/22/93	FLOW C	001	7.5	0.040	0.000	0.060	0.180	0.080	0.000	0.160	0.000	12046
I	05/12/93	FLOW C	001	7.4	0.050	0.000	0.010	0.000	0.000	0.000	0.300	0.007	14510

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 01/01/93 TO 06/30/93

NON-DISCHARGE WASTES

If your firm disposed of any non-domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information:

[✓] No non-domestic wastes were hauled off-site during this reporting period.

[ ] The following non-domestic wastes were hauled off site during this reporting period:

	Type of waste	Volume	P/U Date	Hauling Firm
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 01/01/93 TO 06/30/93

The following statement(s) must be signed by an authorized representative as defined in section I.6.d of the conditional wastewater discharge permit for this company.

STATEMENT OF ACCURACY AND COMPLETENESS

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature Taie Li

Name Taie Li
(type or print)

Title Unit Manager Date 7/1/93

ASARCO INC.

PRETREATMENT ROUTING RECORD

ACCT. NO. 0540 ITEM S.C.R 1-1-6-30-92 REC'D BY ___ DATE 7-28-9

TO	✓	NAME	Initial	DATE Rec'd	DATE Comp	COMMENTS
Pretreat Coordinator				AUG 05 '92	FDB	
Account Represent.				7-28-92		
Computer Input				7-28-92		
FILES				8-6-92		
Copy to METRO				8-6-92		
Copy to EPA						
Copy to DIRECTOR						
Copy to USER				8-6-92		
Account Rep.						

WMD 4469

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 01/01/92 TO 06/30/92

COMPANY: ASARCO INCORPORATED
ADDRESS: 495 E 51ST AVE.
DENVER, CO 80216

THE FOLLOWING IS A LISTING OF MONITORING EVENTS AND THE ANALYTICAL RESULTS CURRENTLY ON FILE WITH THE CITY OF DENVER FOR THIS REPORTING PERIOD. THERE IS NO NEED TO REPORT FURTHER ON THESE EVENTS. HOWEVER, YOU DO NEED TO ATTACH RESULTS OF ALL SELF-MONITORING DONE BY YOUR COMPANY DURING THIS REPORTING PERIOD. EACH SELF-MONITORING EVENT MUST INCLUDE THE FOLLOWING INFORMATION:

1. SAMPLE DATE
2. SAMPLE TIME (START AND END TIME FOR A COMPOSITE SAMPLE)
3. SAMPLE TYPE (GRAB, TIME COMPOSITE OR FLOW COMPOSITE)
4. MONITORING LOCATION (AS SPECIFIED IN DISCHARGE PERMIT)
5. REQUIRED FLOW DATA (MEASURED OR ESTIMATED)
   a. AVERAGE DAILY FLOW AT MONITORING LOCATION 12689
   b. MAXIMUM DAILY FLOW AT MONITORING LOCATION 16,130
6. RESULTS OF ALL LAB ANALYSES (MINIMUM REQUIREMENT TO INCLUDE ALL PARAMETERS SPECIFIED BY PERMIT UNDER SELF-MONITORING REQUIREMENTS).

SCE	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Pb	Ni	Ag	Zn	CN-	FLOW
I	01/14/92	FLOW C	001	7.9	0.030	0.000	0.010	0.000	0.000	0.000	0.080	0.005	13660
I	01/15/92	FOLW	001										14750
I	02/25/92	FLOW C	001	7.0	0.090	0.000	0.010	0.000	0.000	0.000	0.270	0.005	10280
I	02/26/92	FLOW	001										16130
D	03/23/92	FLOW C	001	7.6	0.260	0.000	0.020	0.150	0.090	0.000	2.090	0.000	14959
I	03/25/92	FLOW C	001	7.0	0.240	0.000	0.030	0.000	0.000	0.000	1.160	0.006	14630
I	03/26/92	FLOW	001										7250
I	04/23/92	FLOW C	001	7.0	0.400	0.000	0.000	0.000	0.000	0.000	0.350	0.002	12270
I	04/24/92	FLOW	001										8530
I	05/11/92	FLOW C	001	7.1	0.100	0.000	0.040	0.000	0.000	0.000	0.370	0.010	13780
I	05/12/92	FLOW	001										11460
M	05/13/92	FLOW C	001	7.0	0.039	0.000	0.040	0.000	0.000	0.000	0.320	0.000	14574

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 01/01/92 TO 06/30/92

SCE	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Pb	Ni	Ag	Zn	CN-	FLOW
~~M~~	~~05/13/92~~	~~FLOW C~~	~~001~~	~~7.0~~	~~0.039~~	~~0.000~~	~~0.040~~	~~0.000~~	~~0.000~~	~~0.000~~	~~0.320~~	~~0.000~~	~~14574~~
M	05/14/92	FLOW C	001	7.4	0.135	0.030	0.030	0.060	0.000		0.640		13650
I	06/15/92	FLOW C	001	7.1	0.300	0.000	0.010	0.000	0.000	0.000	1.190	0.006	7010
I	06/17/92	FLOW	001										7440
D	06/23/92	FLOW C	001	7.3	0.120	0.000	0.020	0.110	0.050	0.000	0.750	0.000	5178

NON-DISCHARGE WASTES

If your firm disposed of any non-domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information:

[✓] No non-domestic wastes were hauled off-site during this reporting period.

[ ] The following non-domestic wastes were hauled off site during this reporting period:

	Type of waste	Volume	P/U Date	Hauling Firm
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				

REPORTING PERIOD 01/01/92 TO 06/30/92

The following statement(s) must be signed by an authorized representative as defined in section I.6.d of the conditional wastewater discharge permit for this company.

STATEMENT OF ACCURACY AND COMPLETENESS

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature Taie Li

Name Taie Li
(type or print)

Title Unit Manager Date 7/6/92

REPORTING PERIOD 01/01/92 TO 06/30/92

COMPANY: ASARCO INCORPORATED
ADDRESS: 495 E 51ST AVE.
DENVER, CO 80216

THE FOLLOWING IS A LISTING OF MONITORING EVENTS AND THE ANALYTICAL RESULTS CURRENTLY ON FILE WITH THE CITY OF DENVER FOR THIS REPORTING PERIOD. THERE IS NO NEED TO REPORT FURTHER ON THESE EVENTS. HOWEVER, YOU DO NEED TO ATTACH RESULTS OF ALL SELF-MONITORING DONE BY YOUR COMPANY DURING THIS REPORTING PERIOD. EACH SELF-MONITORING EVENT MUST INCLUDE THE FOLLOWING INFORMATION:

1. SAMPLE DATE
2. SAMPLE TIME (START AND END TIME FOR A COMPOSITE SAMPLE)
3. SAMPLE TYPE (GRAB, TIME COMPOSITE OR FLOW COMPOSITE)
4. MONITORING LOCATION (AS SPECIFIED IN DISCHARGE PERMIT)
5. REQUIRED FLOW DATA (MEASURED OR ESTIMATED)
   a. AVERAGE DAILY FLOW AT MONITORING LOCATION
   b. MAXIMUM DAILY FLOW AT MONITORING LOCATION
6. RESULTS OF ALL LAB ANALYSES (MINIMUM REQUIREMENT TO INCLUDE ALL PARAMETERS SPECIFIED BY PERMIT UNDER SELF-MONITORING REQUIREMENTS).

SCE	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Pb	Ni	Ag	Zn	CN-	FLOW
I	01/14/92	FLOW C	001	7.9	0.030	0.000	0.010	0.000	0.000	0.000	0.080	0.005	13660
I	01/15/92	FOLW	001										14750
I	02/25/92	FLOW C	001	7.0	0.090	0.000	0.010	0.000	0.000	0.000	0.270	0.005	10280
D	03/23/92	FLOW C	001	7.6	0.260	0.000	0.020	0.150	0.090	0.000	2.090	0.000	14959
I	03/25/92	FLOW C	001	7.0	0.240	0.000	0.030	0.000	0.000	0.000	1.160	0.006	14630
I	03/26/92	FLOW	001										7250
I	04/23/92	FLOW C	001	7.0	0.400	0.000	0.000	0.000	0.000	0.000	0.350	0.002	12270
I	04/24/92	FLOW	001										8530
I	05/11/92	FLOW C	001	7.1	0.100	0.000	0.040	0.000	0.000	0.000	0.370	0.010	13780
I	05/12/92	FLOW	001										11460
I	06/15/92	FLOW C	001	7.1	0.300	0.000	0.010	0.000	0.000	0.000	1.190	0.006	7010
I	06/17/92	FLOW	001										7440

REPORTING PERIOD 01/01/92 TO 06/30/92

SCR	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Pb	Ni	Ag	Zn	CN-	FLOW
I	06/17/92	FLOW	001										7440

NON-DISCHARGE WASTES

If your firm disposed of any non-domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information:

[✓] No non-domestic wastes were hauled off-site during this reporting period.

[ ] The following non-domestic wastes were hauled off site during this reporting period:

	Type of waste	Volume	P/U Date	Hauling Firm
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

REPORTING PERIOD 01/01/92 TO 06/30/92

The following statement(s) must be signed by an authorized representative as defined in section I.4.d of the conditional wastewater discharge permit for this company.

STATEMENT OF ACCURACY AND COMPLETENESS

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature Taie Li

Name Taie Li
(type or print)

Title Unit Manager Date 7/6/92

Copied for 7-22-91

CITY AND COUNTY OF DENVER

WELLINGTON E. WEBB
Mayor

DEPARTMENT OF PUBLIC WORKS | WASTEWATER MANAGEMENT DIV.
2460 W. 26th Avenue, Suite 300C
Denver, Colorado 80211

July 18, 1991

Mr. Jay Spickelmier
ASARCO, Inc.
495 E. 51st. Ave.
Denver, CO.
80216

Dear Mr. Spickelmier:

RE: split sample analysis

Please be advised, the Metro Wastewater Reclamation District is requiring that analyzed split samples be reported. The results of the analysis must be reported with the next submittal of the Periodic Compliance Report (PCR).

Please refer to your Conditional Wastewater Discharge Permit, section F.1.b.1; "...results of <u>all</u> samplings..." has been interpreted to include split samples made available to the permittee by any agency. This requirement will become effective upon receipt of this notification.

Should you have questions regarding this subject, please contact Ms. Theresa Pfeifer at the Metro Wastewater Reclamation District at your convenience.

Respectfully,

Fred D. Binkley
Pretreatment Coordinator
City of Denver

cc Tabatabai
Pfeifer
file

RECEIVED
JUL 22 1991
GLOBE PLANT

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 07/01/91 TO 12/31/91

COMPANY: ASARCO INCORPORATED
ADDRESS: 495 E 51ST AVE.
DENVER, CO 80216

THE FOLLOWING IS A LISTING OF MONITORING EVENTS AND THE ANALYTICAL RESULTS CURRENTLY ON FILE WITH THE CITY OF DENVER FOR THIS REPORTING PERIOD. THERE IS NO NEED TO REPORT FURTHER ON THESE EVENTS. HOWEVER, YOU DO NEED TO ATTACH RESULTS OF ALL SELF-MONITORING DONE BY YOUR COMPANY DURING THIS REPORTING PERIOD.

EACH SELF-MONITORING EVENT MUST INCLUDE THE FOLLOWING INFORMATION:

1. SAMPLE DATE
2. SAMPLE TIME (START AND END TIME FOR A COMPOSITE SAMPLE)
3. SAMPLE TYPE (GRAB, TIME COMPOSITE OR FLOW COMPOSITE)
4. MONITORING LOCATION (AS SPECIFIED IN DISCHARGE PERMIT)
5. REQUIRED FLOW DATA (MEASURED OR ESTIMATED)
   a. AVERAGE DAILY FLOW AT MONITORING LOCATION
   b. MAXIMUM DAILY FLOW AT MONITORING LOCATION
6. RESULTS OF ALL LAB ANALYSIS (MINIMUM REQUIREMENT TO INCLUDE ALL PARAMETERS SPECIFIED BY PERMIT UNDER SELF-MONITORING REQUIREMENTS).

SCE	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Ni	Zn	Ag	Hg	Pb	CN-	O/GR	24 HR. FLOW	TTO
I	07/05/91	F	001		0.07										12430	
D	09/23/91	F	001	7.7	0.06	0.00	0.02	0.11	0.45	0.02		0.22	0.00		1160	
I	10/05/91	F	001		0.07										13330	
I	11/21/91	F	001	7.2	0.17		0.01	0.00	0.55			0.00	0.01		15740	
I	11/22/91	F	001												16010	

NON-DISCHARGE WASTES

If your firm disposed of any non-domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information:

[✓] No non-domestic wastes were hauled off-site during this reporting period.

[ ] The following non-domestic wastes were hauled off-site during this reporting period:

	Type of waste	Volume	Pick-up Date	Hauling Firm
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

The following statement(s) must be signed by an authorized representative as defined in section I.4.d of the conditional wastewater discharge permit for this company.

STATEMENT OF ACCURACY AND COMPLETENESS

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature Jay A. Spickelmier

Name Jay A. Spickelmier
(type or print)

Title Manager Date 12-16-91

HERCO INC

PRETREATMENT ROUTING RECORD

CT. NO. 0540 ITEM D.C.R 1-1 TO 6-30-91 REC'D BY ___ DATE 6-12-91

TO	✓	NAME	Initial	DATE Rec'd	DATE Comp	COMMENTS
Pretreat oordinator	✓		JUN 13 '91	FDB		
Account epresent.	✓		AR	JUN 12 '91		
Computer Input	✓		AR	JUN 12 '91		
FILES	✓		AR	JUN 13 '91		
Copy to METRO	✓		AR	JUN 13 '91		
Copy to EPA						
Copy to IRECTOR						
Copy to USER	✓		AR	JUN 13 '91		
Account Rep.						

4469

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 01/01/91 TO 06/30/91

COMPANY: ASARCO INCORPORATED
ADDRESS: 495 E 51ST AVE.
DENVER, CO 80216

THE FOLLOWING IS A LISTING OF MONITORING EVENTS AND THE ANALYTICAL RESULTS CURRENTLY ON FILE WITH THE CITY OF DENVER FOR THIS REPORTING PERIOD. THERE IS NO NEED TO REPORT FURTHER ON THESE EVENTS. HOWEVER, YOU DO NEED TO ATTACH RESULTS OF ALL SELF-MONITORING DONE BY YOUR COMPANY DURING THIS REPORTING PERIOD.

EACH SELF-MONITORING EVENT MUST INCLUDE THE FOLLOWING INFORMATION:

1. SAMPLE DATE
2. SAMPLE TIME (START AND END TIME FOR A COMPOSITE SAMPLE)
3. SAMPLE TYPE (GRAB, TIME COMPOSITE OR FLOW COMPOSITE)
4. MONITORING LOCATION (AS SPECIFIED IN DISCHARGE PERMIT)
5. REQUIRED FLOW DATA (MEASURED OR ESTIMATED)
   a. AVERAGE DAILY FLOW AT MONITORING LOCATION 16,463.5
   b. MAXIMUM DAILY FLOW AT MONITORING LOCATION 51,970
6. RESULTS OF ALL LAB ANALYSIS (MINIMUM REQUIREMENT TO INCLUDE ALL PARAMETERS SPECIFIED BY PERMIT UNDER SELF-MONITORING REQUIREMENTS).

SCE	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Ni	Zn	Ag	Hg	Pb	CN-	O/GR	24 HR. FLOW	TTO
D	01/02/91	F	001	7.4	0.07	0.00	0.04	0.00	0.18	0.00		0.00	0.00		7902	
I	01/09/91	F	001		0.01										51970	
M	02/06/91	F	001	7.6	0.03	0.00	0.03	0.00	1.30			0.00			1933	
M	02/07/91	S	001	7.7												
M	02/08/91	S	001	7.0												
I	03/05/91	F	001		0.05										28460	
D	03/27/91	F	001	7.7	0.18	0.06	0.13	0.44	0.54	0.06		1.04	0.00		11950	
I	06/04/91	S	001	6.8	0.17		0.00	0.00	3.98			0.00	0.00		19980	
I	06/05/91	F	001												7050	

The following statement(s) must be signed by an authorized representative as defined in section I.4.d of the conditional wastewater discharge permit for this company.

STATEMENT OF ACCURACY AND COMPLETENESS

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature Jay A. Spickelmier

Name Jay A. Spickelmier
(type or print)

Title Manager Date 6-11-91

NON-DISCHARGE WASTES

If your firm disposed of any non-domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information:

[✓] No non-domestic wastes were hauled off-site during this reporting period.

[ ] The following non-domestic wastes were hauled off-site during this reporting period:

	Type of waste	Volume	Pick-up Date	Hauling Firm
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 01/01/91 TO 06/30/91

COMPANY: ASARCO INCORPORATED
ADDRESS: 495 E 51ST AVE.
DENVER, CO 80216

THE FOLLOWING IS A LISTING OF MONITORING EVENTS AND THE ANALYTICAL RESULTS CURRENTLY ON FILE WITH THE CITY OF DENVER FOR THIS REPORTING PERIOD. THERE IS NO NEED TO REPORT FURTHER ON THESE EVENTS. HOWEVER, YOU DO NEED TO ATTACH RESULTS OF ALL SELF-MONITORING DONE BY YOUR COMPANY DURING THIS REPORTING PERIOD.

EACH SELF-MONITORING EVENT MUST INCLUDE THE FOLLOWING INFORMATION:

1. SAMPLE DATE
2. SAMPLE TIME (START AND END TIME FOR A COMPOSITE SAMPLE)
3. SAMPLE TYPE (GRAB, TIME COMPOSITE OR FLOW COMPOSITE)
4. MONITORING LOCATION (AS SPECIFIED IN DISCHARGE PERMIT)
5. REQUIRED FLOW DATA (MEASURED OR ESTIMATED)
   a. AVERAGE DAILY FLOW AT MONITORING LOCATION 18,463.5
   b. MAXIMUM DAILY FLOW AT MONITORING LOCATION 51,970
6. RESULTS OF ALL LAB ANALYSIS (MINIMUM REQUIREMENT TO INCLUDE ALL PARAMETERS SPECIFIED BY PERMIT UNDER SELF-MONITORING REQUIREMENTS).

SCE	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Ni	Zn	Ag	Hg	Pb	CN-	O/GR	24 HR. FLOW	TTO
D	01/02/91	F	001	7.4	0.07	0.00	0.04	0.00	0.18	0.00		0.00	0.00		7902	
I	01/09/91	F	001		0.01										51970	
M	02/06/91	F	001	7.6	0.03	0.00	0.03	0.00	1.30			0.00			1933	
M	02/07/91	S	001	7.7												
M	02/08/91	S	001	7.0												
I	03/05/91	F	001		0.05										28460	
D	03/27/91	F	001	7.7	0.18	0.06	0.13	0.44	0.54	0.06		1.04	0.00		11950	
I	06/04/91	S	001	6.8	0.17		0.00	0.00	3.98			0.00	0.00		19980	
I	06/05/91	F	001												7050	

ASARCO INC.

PRETREATMENT ROUTING RECORD

CCT. NO. 0540 ITEM PERIODIC COMPLIANCE REPORT REC'D BY TR DATE

TO	✓	NAME	Initial	DATE Rec'd	DATE Comp	COMMENTS
Pretreat Coordinator	✓		BB		12-19	
Account Represent.	✓	AR DEC 14 '90				
Computer Input	✓	AR DEC 14 '90				
FILES	✓	AR DEC 19 '90				
Copy to METRO	✓	AR DEC 19 '90				
Copy to EPA						
Copy to DIRECTOR						
Copy to USER	✓	AR DEC 19 '90				
Account Rep.						

MD 4469

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 06/16/90 TO 12/15/90

COMPANY: ASARCO INCORPORATED
ADDRESS: 495 E 51ST AVE.
DENVER, CO 80216

THE FOLLOWING IS A LISTING OF MONITORING EVENTS AND THE ANALYTICAL RESULTS CURRENTLY ON FILE WITH THE CITY OF DENVER FOR THIS REPORTING PERIOD. THERE IS NO NEED TO REPORT FURTHER ON THESE EVENTS. HOWEVER, YOU DO NEED TO ATTACH RESULTS OF ALL SELF-MONITORING DONE BY YOUR COMPANY DURING THIS REPORTING PERIOD.

EACH SELF-MONITORING EVENT MUST INCLUDE THE FOLLOWING INFORMATION:

1. SAMPLE DATE
2. SAMPLE TIME (START AND END TIME FOR A COMPOSITE SAMPLE)
3. SAMPLE TYPE (GRAB, TIME COMPOSITE OR FLOW COMPOSITE)
4. MONITORING LOCATION (AS SPECIFIED IN DISCHARGE PERMIT)
5. REQUIRED FLOW DATA (MEASURED OR ESTIMATED)
   a. AVERAGE DAILY FLOW AT MONITORING LOCATION
   b. MAXIMUM DAILY FLOW AT MONITORING LOCATION
6. RESULTS OF ALL LAB ANALYSIS (MINIMUM REQUIREMENT TO INCLUDE ALL PARAMETERS SPECIFIED BY PERMIT UNDER SELF-MONITORING REQUIREMENTS).

SOURCE	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Ni	Zn	Ag	Pb	CN-	TTO	24 HR. FLOW	O/GR
INDUST	07/16/90	FLOW COMP	001		0.17									25560	
INDUST	09/10/90	FLOW COMP	001		0.05								0.00	17720	0.0
DENVER	09/18/90	FLOW COMP	001	5.8	0.14	0.00	0.06	0.20	1.60	0.03	0.36	0.03		27995	
DENVER	09/25/90	FLOW COMP	001	7.7	0.23	0.00	0.05	0.00	2.43	0.00	0.09	0.00		13378	
INDUST	10/09/90	FLOW COMP	001	7.4	0.08	0.02	0.01	0.02	0.72	0.01	0.05	0.00		32450	
METRO	10/15/90	FLOW COMP	001	7.4	0.14	0.00	0.00	0.00	0.87	0.00	0.07	0.00		11987	
METRO	10/16/90	FLOW COMP	001	7.4	0.00	0.58	0.26	0.46	0.06	0.00	0.00			9683	
METRO	10/17/90	TIME COMP	001	8.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
INDUST	11/13/90	FLOWCOMP	001		0.04							0.00		23390	

MAX AVERAGE 20,207
MAX FLOW 32,450

RECEIVED
DEC 27

NON-DISCHARGE WASTES

If your firm disposed of any non-domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information:

[X] No non-domestic wastes were hauled off-site during this reporting period.

[ ] The following non-domestic wastes were hauled off-site during this reporting period:

	Type of waste	Volume	Pick-up Date	Hauling Firm
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

The following statement(s) must be signed by an authorized representative as defined in section I.4.d of the conditional wastewater discharge permit for this company.

STATEMENT OF ACCURACY AND COMPLETENESS

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature _____

Name EZRA C. PUGH
(type or print)

Title OPERATIONS MGR Date 12/14/90

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 06/16/90 TO 12/15/90

COMPANY: ASARCO INCORPORATED
ADDRESS: 495 E 51ST AVE.
DENVER, CO 80216

THE FOLLOWING IS A LISTING OF MONITORING EVENTS AND THE ANALYTICAL RESULTS CURRENTLY ON FILE WITH THE CITY OF DENVER FOR THIS REPORTING PERIOD. THERE IS NO NEED TO REPORT FURTHER ON THESE EVENTS. HOWEVER, YOU DO NEED TO ATTACH RESULTS OF ALL SELF-MONITORING DONE BY YOUR COMPANY DURING THIS REPORTING PERIOD.

EACH SELF-MONITORING EVENT MUST INCLUDE THE FOLLOWING INFORMATION:

1. SAMPLE DATE
2. SAMPLE TIME (START AND END TIME FOR A COMPOSITE SAMPLE)
3. SAMPLE TYPE (GRAB, TIME COMPOSITE OR FLOW COMPOSITE)
4. MONITORING LOCATION (AS SPECIFIED IN DISCHARGE PERMIT)
5. REQUIRED FLOW DATA (MEASURED OR ESTIMATED)
   a. AVERAGE DAILY FLOW AT MONITORING LOCATION
   b. MAXIMUM DAILY FLOW AT MONITORING LOCATION
6. RESULTS OF ALL LAB ANALYSIS (MINIMUM REQUIREMENT TO INCLUDE ALL PARAMETERS SPECIFIED BY PERMIT UNDER SELF-MONITORING REQUIREMENTS).

SOURCE	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Ni	Zn	Ag	Pb	CN-	TTO	24 HR. FLOW	O/GR
INDUST	07/16/90	FLOW COMP	001		0.17									25560	
INDUST	09/10/90	FLOW COMP	001		0.05								0.00	17720	0.0
DENVER	09/18/90	FLOW COMP	001	5.8	0.14	0.00	0.06	0.20	1.60	0.03	0.36	0.03		27895	
DENVER	09/25/90	FLOW COMP	001	7.7	0.23	0.00	0.05	0.00	2.43	0.00	0.09	0.00		13378	
INDUST	10/09/90	FLOW COMP	001	7.4	0.08	0.02	0.01	0.02	0.72	0.01	0.05	0.00		32450	
METRO	10/15/90	FLOW COMP	001	7.4	0.14	0.00	0.00	0.00	0.87	0.00	0.07	0.00		11987	
METRO	10/16/90	FLOW COMP	001	7.4	0.00	0.58	0.26	0.46	0.06	0.00	0.00			9683	
METRO	10/17/90	TIME COMP	001	8.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
INDUST	11/13/90	FLOWCOMP	001		0.04							0.00		23390	

NON-DISCHARGE WASTES

If your firm disposed of any non-domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information:

[X] No non-domestic wastes were hauled off-site during this reporting period.

[ ] The following non-domestic wastes were hauled off-site during this reporting period:

	Type of waste	Volume	Pick-up Date	Hauling Firm
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

The following statement(s) must be signed by an authorized representative as defined in section I.4.d of the conditional wastewater discharge permit for this company.

STATEMENT OF ACCURACY AND COMPLETENESS

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature _____

Name EZRA C. PUGH
(type or print)

Title OPERATIONS MGR Date 12/14/90

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 12/16/89 TO 06/15/90

COMPANY: ASARCO INCORPORATED
ADDRESS: 495 E 51ST AVE.
DENVER, CO 80216

THE FOLLOWING IS A LISTING OF MONITORING EVENTS AND THE ANALYTICAL RESULTS CURRENTLY ON FILE WITH THE CITY OF DENVER FOR THIS REPORTING PERIOD. THERE IS NO NEED TO REPORT FURTHER ON THESE EVENTS. HOWEVER, YOU DO NEED TO ATTACH RESULTS OF ALL SELF-MONITORING DONE BY YOUR COMPANY DURING THIS REPORTING PERIOD.

EACH SELF-MONITORING EVENT MUST INCLUDE THE FOLLOWING INFORMATION:

1. SAMPLE DATE
2. SAMPLE TIME (START AND END TIME FOR A COMPOSITE SAMPLE)
3. SAMPLE TYPE (GRAB, TIME COMPOSITE OR FLOW COMPOSITE)
4. MONITORING LOCATION (AS SPECIFIED IN DISCHARGE PERMIT)
5. REQUIRED FLOW DATA (MEASURED OR ESTIMATED)
   a. AVERAGE DAILY FLOW AT MONITORING LOCATION
   b. MAXIMUM DAILY FLOW AT MONITORING LOCATION
6. RESULTS OF ALL LAB ANALYSIS (MINIMUM REQUIREMENT TO INCLUDE ALL PARAMETERS SPECIFIED BY PERMIT UNDER SELF-MONITORING REQUIREMENTS).

SOURCE	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Ni	Zn	Ag	Pb	CN-	TTO	AVG. FLOW
DENVER	12/26/89	FLOW COMP	001		0.11	0.04	0.04	0.35	0.24	0.01	0.18			16557
DENVER	12/27/89	GRAB	001	7.7								0.30		0
INDUST	01/10/90	FLOW			0.06									16100
METRO	03/06/90	TIME COMP		6.9	0.09	0.00	0.02	0.00	0.67	0.00	0.00	0.00		0
METRO	03/06/90	TIME COMP		7.3	0.12	0.00	0.03	0.00	0.82	0.00	0.00	0.00		0
INDUST	03/15/90	FLOW			0.16									44540
DENVER	03/27/90	FLOW,GRAB		7.5	0.20	0.00	0.09	0.25	1.24	0.04	0.54	0.00		10607
INDUST	05/17/90	FLOW COMP		8.2	0.04		0.00	0.00	0.47		0.00	0.01		46390

NON-DISCHARGE WASTES

If your firm disposed of any non-domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information:

[X] No non-domestic wastes were hauled off-site during this reporting period.

[ ] The following non-domestic wastes were hauled off-site during this reporting period:

	Type of waste	Volume	Pick-up Date	Hauling Firm
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

The following statement(s) must be signed by an authorized representative as defined in section I.4.d of the conditional wastewater discharge permit for this company.

STATEMENT OF ACCURACY AND COMPLETENESS

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature J. A. Spickelmier

Name J. A. Spickelmier
(type or print)

Title Manager Date 6-14-90

PERIODIC COMPLIANCE REPORT

REPORTING PERIOD 06/16/89 TO 12/15/89

COMPANY: ASARCO INCORPORATED
ADDRESS: 495 E 51ST AVE.
DENVER, CO 80216

THE FOLLOWING IS A LISTING OF MONITORING EVENTS AND THE ANALYTICAL RESULTS CURRENTLY ON FILE WITH THE CITY OF DENVER FOR THIS REPORTING PERIOD. THERE IS NO NEED TO REPORT FURTHER ON THESE EVENTS. HOWEVER, YOU DO NEED TO ATTACH RESULTS OF ALL SELF-MONITORING DONE BY YOUR COMPANY DURING THIS REPORTING PERIOD.

EACH SELF-MONITORING EVENT MUST INCLUDE THE FOLLOWING INFORMATION:
(See Attached Sheets)

1. SAMPLE DATE
2. SAMPLE TIME (START AND END TIME FOR A COMPOSITE SAMPLE)
3. SAMPLE TYPE (GRAB, TIME COMPOSITE OR FLOW COMPOSITE)
4. MONITORING LOCATION (AS SPECIFIED IN DISCHARGE PERMIT)
5. REQUIRED FLOW DATA (MEASURED OR ESTIMATED)
   a. AVERAGE DAILY FLOW AT MONITORING LOCATION
   b. MAXIMUM DAILY FLOW AT MONITORING LOCATION
6. RESULTS OF ALL LAB ANALYSIS (MINIMUM REQUIREMENT TO INCLUDE ALL PARAMETERS SPECIFIED BY PERMIT UNDER SELF-MONITORING REQUIREMENTS).

SOURCE	DATE	TYPE	POINT	pH	Cd	Cr	Cu	Ni	Zn	Ag	Pb	CN-	TTO	AVG. FLOW
DENVER	06/27/89	FLOW COMP	PT 001	7.6	0.07	0.00	0.09	0.00	0.58	0.00	0.09	0.00		50041
INDUST	07/26/89	FLOW	001		0.20									11140
INDUST	08/29/89	FLOW			0.04									28565
DENVER	09/25/89	FLOW			0.14	0.00	0.04	0.12	0.52	0.00	0.20			10706
DENVER	09/25/89	GRAB		7.5								0.00		0
INDUST	10/02/89	FLOW			0.06									51283

NON-DISCHARGE WASTES

If your firm disposed of any non-domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information:

[ ] No non-domestic wastes were hauled off-site during this reporting period.

[X] The following non-domestic wastes were hauled off-site during this reporting period:

	Type of waste	Volume	Pick-up Date	Hauling Firm
1.	Sulfide Mud	83,810 lbs	June 16, 1989	Burlington Northern
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

The following statement(s) must be signed by an authorized representative as defined in section I.4.d of the conditional wastewater discharge permit for this company.

STATEMENT OF ACCURACY AND COMPLETENESS

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature Larry G Eagan

Name LARRY G. EAGAN
(type or print)

Title Manager Date 12-4-89

November 27, 1989

ASARCO Globe Plant
495 East 51 Ave.
Denver Colorado 80216
296-5900

File: 2.45.5.2

Sanitary Sewer Self-Monitoring
6th Month Metals monitoring

Denver Wastewater,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following date:

STARTING DATE: 11/20/89 STARTING TIME: 0825
ENDING DATE: 11/21/89 ENDING TIME: 0830

A 24 hour flow composite sample was collected and the following parameters were analyzed:

TOTAL FLOW FOR 24 HR. 25590 gallons

Cadmium	(Cd) total	0.055	(ppm)
Chromium	(Cr) total	0.025	(ppm)
Copper	(Cu) total	0.010	(ppm)
Lead	(Pb) total	0.050	(ppm)
Nickel	(Ni) total	0.025	(ppm)
Zinc	(Zn) total	0.46	(ppm)
Silver	(Ag) total	0.010	(ppm)

grab sample for CN- and pH

Cyanide	(CN) total	0.003	(ppm)
pH		7.82	

Larry G Eagan

LARRY G. EAGAN
Plant Manager

November 27, 1989 File: 2.45.5.2

Mr. Y. Harrison,
Denver North Side Treatment
5100 North Mariron
Denver Colorado 80216

Sanitary Sewer Self-Monitoring
Sixth Month Flow Measurements

Mr. Harrison,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following date:

STARTING DATE: 11/20/89 STARTING TIME: 0825
ENDING DATE: 11/21/89 ENDING TIME: 0830

A 24 hour flow measurment was collected and the following parameters were analyzed for:

TOTAL FLOW FOR 24 HR.	25590	gallons
AVERAGE DAILY FLOW FOR 24 HR.	0.295	gal/sec.
MAXIMUM DAILY FLOW FOR 24 HR.	1.68	gal/sec.

Larry G. Eagan

LARRY G. EAGAN
Plant Manager

R1 ANNUAL

Industrial Compliance Report

Reporting Period: Dec 15, 1988 to June 15, , 1989.

Section A. Industry Information

Name of Industry: ASARCO Incorporated, Globe Plant

Mailing Address : 495 East 51st Avenue

Denver, Colorado

Person submitting report LARRY G. EAGAN, Manager

Section B. Analytical Results of Sampling Events

Attach results of ALL sampling events for reporting period. Each sampling event must include the following information:

1. Sample Date
2. Sample Time
3. Sample Type:
   a. Grab
   b. Time Composite
   c. Flow Composite

SEE ATTACHED

4. Sampling Location
   (At a minimum, samples should be from ALL Monitoring Points identified in your Wastewater Contribution Permit.)
5. Results of ALL analysis performed on samples.
   (Minimum requirement to include all parameters

identified in the Permit under Self-monitoring requirements.)

6. ALL required flow data (measured or estimated):

   a. Average daily flow at Monitoring Point(s)

   b. Maximum daily flow at Monitoring Point(s)

Section C. Non-Discharge Wastes

If your firm disposed of any non domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information.

	Type of waste	Volume	Pick-up Date	Hauling Firm
1.	None			
2.				
3.				
4.				
5.				
6.				

Section D. Statement of Compliance or Noncompliance

Complete and sign statement 1 or 2.

1. Based on the information contained on this compliance report and my own personal knowledge, the business identified in Section A of this report is consistently meeting all federal and local pretreatment standards as set forth in the Wastewater Contribution Permit issued to this company.

Signature Larry G. Eagan

Name (print) LARRY G. EAGAN

Title Manager Date 6-15-89

2. Based on the information contained on this compliance report and my own personal knowledge, the business identified in Section A of this report is not consistently meeting federal and local pretreatment standards as set forth in the Wastewater Contribution Permit issued to this company. Additional operations and maintenance, and/or adequate pretreatment to meet these requirements, will be implemented as soon as possible. A compliance schedule outlining the specific actions we will take is attached. This schedule represents the shortest reasonable time frame within which we can meet these requirements. I understand that this compliance schedule in no way releases my firm from further administrative and/or legal actions that may be taken by the City and County of Denver or other applicable State or Federal Agencies.

Signature _____

Name (print) _____

Title _____ Date _____

Section E. Total Toxic Organics Certification Statement

As an alternative to monitoring total toxic organics (TTO's) to determine compliance with the TTO standards that may be required for certain industries, some industries, with the approval of the City and County of Denver, may complete the following statement.

Based on my inquiry of the person or persons directly responsible for managing compliance the pretreatment standards for total toxic organics (TTO's), I certify that to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewater has occurred since filing of the last required compliance report. I further certify that this facility is implementing the Toxic Organic Management Plan most recently submitted to and approved by the City and County of Denver.

Signature Larry G. Eagan

Name (print) LARRY G. EAGAN

Title Manager Date 6-15-89

Section F. Statement of Accuracy and Completeness

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or perons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

Signature Larry G. Eagan

Name (print) LARRY G. EAGAN

Title Manager Date 6-15-89

File: 2.45.5.2

Mr. Y. Harrison,
Denver North Side Treatment
5100 North Mariron
Denver Colorado 80216

Sanitary Sewer Self-Monitoring
Bi-Monthly Cadmium monitoring

Mr. Harrison,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following date:

STARTING DATE: 2/15/89 STARTING TIME: 1600
ENDING DATE: 2/16/89 ENDING TIME:1600

A 24 hour flow composite sample was collected and the following parameters were analyzed for:

TOTAL FLOW FOR 24 HR.	43570 gallons
AVERAGE DAILY FLOW FOR 24 HR.	0.504 gal/sec
MAXIMUM DAILY FLOW FOR 24 HR.	1.36 gal/sec
NUMBER OF TANKS DISCHARGED	2 tanks

Cadmium (Cd) Total 0.025 (ppm)

E.C. PUGH
Technical Services Manager

March 29, 1989 File: 2.45.5.2

Mr. Y. Harrison,
Denver North Side Treatment
5100 North Mariron
Denver Colorado 80216

Sanitary Sewer Self-Monitoring
Sixth Monthly Metals monitoring

Mr. Harrison,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following date:

STARTING DATE: 3/17/89 STARTING TIME: 0830
ENDING DATE: 3/18/89 ENDING TIME: 0830

A 24 hour flow composite sample was collected and the following parameters were analyzed for:

Total flow : 23640 GALLONS
Number of tanks discharged : 3 TANKS

Total Metals	Concentration (ppm)
Cadmium (Cd)	0.270
Copper (Cu)	0.030
Lead (Pb)	0.025
Nickel (Ni)	0.025
Zinc (Zn)	1.22

pH grab sample 7.20
CN- grab sample 0.002 PPM

TAIE LI
Technical Services Manager

April 14, 1989

File: 2.45.5.2

Mr. Y. Harrison,
Denver North Side Treatment
5100 North Mariron
Denver Colorado 80216

Sanitary Sewer Self-Monitoring
Periodic Cadmium monitoring

Mr. Harrison,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 every other month for cadmium on the following date:

STARTING DATE: 4/11/89 STARTING TIME: 1200
ENDING DATE: 4/12/89 ENDING TIME: 1200

A 24 hour flow composite sample was collected and the following parameters were analyzed for:

TOTAL FLOW FOR 24 HR.	22430 gallons
AVERAGE DAILY FLOW FOR 24 HR.	0.97 gal/sec
MAXIMUM DAILY FLOW FOR 24 HR.	0.260 gal/sec
NUMBER OF TANKS DISCHARGED	4 tanks

Cadmium (Cd) Total 0.040 (ppm)

T. Li
Technical Services Manager

METROPOLITAN DENVER SEWAGE DISPOSAL DISTRICT NO. 1

INDUSTRIAL WASTE/PRETREATMENT SAMPLING REPORT

SAMPLING RESULTS

SAMPLE NAME: ASARCO
METRO CONTROL NO: 61809
SAMPLE DATE: 01/09/89
RECEIVED DATE: 01/09/89
SAMPLE TYPE: GRAB
SAMPLE TIME: 8:25
SAMPLE LOCATION: 001
FLOW: N/A
SAMPLERS: B. ORTIZ

RESULTS

pH, std : 7.8

SAMPLE NAME: ASARCO
METRO CONTROL NO: 61810
SAMPLE DATE: 01/09/89
RECEIVED DATE: 01/09/89
SAMPLE TYPE: GRAB
SAMPLE TIME: 8:25
SAMPLE LOCATION: 001
FLOW: N/A
SAMPLERS: B. ORTIZ

RESULTS

CYANIDE (T), ug/L : <30

---

gd 1/25/89

METROPOLITAN DENVER SEWAGE DISPOSAL DISTRICT NO. 1

INDUSTRIAL WASTE/PRETREATMENT SAMPLING REPORT

SAMPLING RESULTS

SAMPLE NAME: ASARCO METRO CONTROL NO: 61890

SAMPLE DATE: 01/10/89 RECEIVED DATE: 01/10/89

SAMPLE TYPE: GRAB SAMPLE TIME: 10:30

SAMPLE LOCATION: 001 FLOW: N/A

SAMPLERS: B. ORTIZ, J. GARRISON

RESULTS

pH, std : 8.4

SAMPLE NAME: ASARCO METRO CONTROL NO: 61891

SAMPLE DATE: 01/09/89 RECEIVED DATE: 01/10/89

SAMPLE TYPE: FLOW COMP. SAMPLE TIME: 08:00 - 10:30

SAMPLE LOCATION: 001 FLOW: 18600

SAMPLERS: B. ORTIZ, J. GARRISON

RESULTS

SILVER (TR), ug/L :	0.7
CADMIUM (T), ug/L :	78
CHROMIUM (T), mg/L :	<0.02
COPPER (T), mg/L :	0.03
LEAD (T), mg/L :	0.06
NICKEL (T), mg/L :	<0.02
ZINC (T), mg/L :	2.13

JAN 1/25/89

METROPOLITAN DENVER SEWAGE DISPOSAL DISTRICT NO. 1

INDUSTRIAL WASTE/PRETREATMENT SAMPLING REPORT

SAMPLING RESULTS

SAMPLE NAME: ASARCO
METRO CONTROL NO: 61971
SAMPLE DATE: 01/11/89
RECEIVED DATE: 01/11/89
SAMPLE TYPE: GRAB
SAMPLE TIME: 09:50
SAMPLE LOCATION: 001
FLOW: N/A
SAMPLERS: B. ORTIZ

RESULTS

pH, std : 6.9

SAMPLE NAME: ASARCO
METRO CONTROL NO: 61972
SAMPLE DATE: 01/10/89
RECEIVED DATE: 01/11/89
SAMPLE TYPE: FLOW COMP.
SAMPLE TIME: 11:00 - 10:00
SAMPLE LOCATION: 001
FLOW: 35200
SAMPLERS: B. ORTIZ

RESULTS

SILVER (TR), ug/L : 0.7
CADMIUM (T), ug/L : 31
CHROMIUM (T), mg/L : <0.02
COPPER (T), mg/L : <0.02
LEAD (T), mg/L : <0.05
NICKEL (T), mg/L : <0.02
ZINC (T), mg/L : 0.42

1/25/89

METROPOLITAN DENVER SEWAGE DISPOSAL DISTRICT NO. 1

INDUSTRIAL WASTE/PRETREATMENT SAMPLING REPORT

SAMPLING RESULTS

SAMPLE NAME: ASARCO METRO CONTROL NO: 62051

SAMPLE DATE: 01/11/89 RECEIVED DATE: 01/12/89

SAMPLE TYPE: FLOW COMP. SAMPLE TIME: 10:00 - 09:00

SAMPLE LOCATION: 001 FLOW: 37300

SAMPLERS: B. ORTIZ, J. GARRISON

RESULTS

SILVER (TR), ug/L :	0.8
CADMIUM (T), ug/L :	31
CHROMIUM (T), mg/L :	<0.02
COPPER (T), mg/L :	0.03
LEAD (T), mg/L :	<0.05
NICKEL (T), mg/L :	0.03
ZINC (T), mg/L :	0.84

01/25/89

ASARCO INCORPORATED
495 EAST 51ST AVENUE

Attach a copy of this list to each analytical report, and supply ALL information listed below for each monitoring event.

1. Sample Date: 1-3-89 1-4-89 CITY SAMPLE

2. Sample Time: 8:15 AM TO 8:15 AM

3. Sample Type:

   a. Grab

   b. Time Composite

   c. Flow Composite

4. Sampling Location 001 CONTROL MANHOLE
   (At a minimum, samples should be from ALL Monitoring Points identified in your Wastewater Contribution Permit.)

5. Results of ALL analysis performed on samples.
   (Minimum requirement to include all parameters identified in the Permit under Self-monitoring requirements.) SEE ATTACHED

6. ALL required flow data (measured or estimated):

   a. Average daily flow at Monitoring Point(s) 17,645 GALLON

   b. Maximum daily flow at Monitoring Point(s)

PRETREATMENT ROUTING RECORD

ACCT. NO. S0540 ITEM S/C Report REC'D BY [illegible] DATE 2-1-89

TO	✓	NAME	Initial	DATE Rec'd	DATE Comp	COMMENTS
Pretreat Coordinator						
Account Represent.	✓	Yulonda	YSA	2/1		
Computer Input	✓		[illegible]		2/7/89	
FILES	✓	YULONDA	YSA	2/7	2/7	Filed
Copy to METRO	✓	YULONDA	YSA	2/7	2/7	Copy to metro
Copy to EPA						
Copy to DIRECTOR						
Copy to USER	✓	YULONDA	YSA	2/7	2/7	Copy to user
Account Rep.						

WMD 4469

SAMPLING REQUEST

COMPANY
ASARCO INCORPORATED

ADDRESS DENVER 80216
495 E 51ST AVE.

ACCT NO
S 0540

MANAGER
LARRY G. EAGAN

PHONE
296-6381

PRETREAT REF.
HARRISON

CLASS: SIGNIFICANT USER
DESCRIPTION OF BUSINESS:
CADMIUM METAL REFINERY

SAMPLING LOCATION
CONTROL MANHOLE INSTALLED LOCATED EAST 200FT FROM OFFICE.

CAUTION: DISCHARGE WASTES FROM THIS INDUSTRY MAY CONTAIN HAZARDOUS OR TOXIC SUBSTANCES. APPROPRIATE SAFETY PRECAUTIONS SHOULD BE OBSERVED WHILE GATHERING AND HANDLING THESE WASTES.

REQUESTED BY FDB 12-22-88 TO CWH 1-10-89 ~~TO AER~~

DATE REQUESTED: 1 / 3 / 89 JAN 23 '89 FDB

SPECIAL HANDLING REQUIRED: _____

[ ] SIMPLE GRAB
[ ] TIME COMPOSITE
[X] FLOW COMPOSITE
[X] GRAB FOR pH / CN-
[ ] 3 DAY FLOW MEAS.
[ ] TTO
[X] BLANK CYANIDE/METALS

DATE SAMPLED: 1 / 4 / 89

SAMPLING / FLOW MONITORING CREW Tom Lujan Bob Dixon

TIME SAMPLE STARTED 8:15 A.M. TIME SAMPLE COMPLETED 8:15 A.M.

SAMPLE VOLUME 3,936 ML.

30 MINUTE PEAK FLOW 46.2 GPM. TOTAL 24 HOUR FLOW 17,645 GAL.

pH GRAB TIME 8:20 DATE 1-4-89

CYANIDE GRAB TIME 8:25 DATE 1-4-89

FIELD GRAB TIME 8:30 DATE 1-4-89

SAMPLE SPLIT WITH ASARCO INC.

SAMPLE PRESERVED WITH _____

FIELD NOTES:

DELIVERED TO [illegible] TIME 12:15 PM DATE 1 / 4 / 89

========== PRETREATMENT USE ONLY ==========

BY ____/_____ (INIT DATE) COMPUTER WP/_____ (INIT DATE) FDB ____/_____ (INIT DATE) FILE ____/_____ (INIT DATE)

FORM: SAMPFORM.PRS

WASTEWATER MANAGEMENT DIVISION CITY AND COUNTY OF DENVER	Project No. ____ Sub Area No. ____	Area File No. ____ Work Order No. ____
Location 495 E. 51ST AVE. A. SARCO INC.		Calc. by B. Dixon Date 1-4-89 Chkd. by AL Date 1-6-89

DATE 1-3-87 ☐ FLOW MEASUREMENT ONLY ☒ FLOW MEAS. & SAMPLE

LINE SIZE 8" SLOPE ____ MEASURING DEVICE 5" V-NOTCH

RECORDER O-15 F.P. CREW Tim Lujan Bob Dixon

*Indicates starting time of flow measurement.

TIME	HRLY. AVRG.	HD FT	GPM	GPH	d/E	q/Q	%	AMT. to COMP	MULTPR.	ACTL COMP
7 AM	0.6	.05	5.0	298			.016		X4,000	64
8	0.6	.05	5.0	298			.016			64
9	0.6	.05	5.0	298			.016			64
10	0.6	.05	5.0	298			.016			64
11	0.6	.05	5.0	298			.016			64
12 PM	0.6	.05	5.0	298			.016			64
1	0.6	.05	5.0	298			.016			64
2	0.6	.05	5.0	298			.016			64
3	0.9	.08	11	655			.037			148
4	1.3	.11	19.4	1160			.065			260
5	1.8	.15	33.3	1994			.113			452
6	1.7	.14	29.2	1752			.099			396
7	1.4	.12	22.6	1355			.076			304
8	1.2	.10	16.1	964			.054			216
9	0.9	.08	11	655			.037			148
10	0.7	.06	6.7	399			.022			88
11	0.8	.07	8.7	520			.029			116
12 AM	2.2	.18	46.2	2769			.156			624
1	1.5	.13	25.8	1543			.087			348
2	1.0	.08	11	655			.037			148
3	0.5	.04	3.6	210			.011			44
4	0.5	.04	3.6	210			.011			44
5	0.5	.04	3.6	210			.011			44
6 AM	0.5	.04	3.6	210			.011			44
			TOTALS	17,645			98.4%			3,934

METER READINGS IF APPLICABLE

	1	2	3
FINISH			
START			

ADDITIONAL INFO. ____

STANDARD FLOW MEASUREMENT COMPUTATION SHEET

8 AM
3 AM
3 PM
4 PM
7 PM
8 PM
FISCHER & PORTER CO.
WARMINSTER, PA.

LAB ANALYSIS REQUEST

Company: SARCO INCORPORATED
Manager: LARRY G. EAGAN
Address: 495 E 51ST AVE.
Phone: 296-6381
Pretreat Rep: HARRISON
Acct Num: 0540

Description of Business: CADMIUM METAL REFINERY
Business Class: SIGNIFICANT USER

Sample Number: 89-01-04-12
Sample Requested: 1·3·89
Sample Date: FEB 01 '89 FDB
Requested By: [illegible] Date: 12·22·88

---------- Lab Analysis Notes ----------

Special Handling Req'd:

Sample Preserved With: Metals - HNO_3
CN^- — NaOH

[ ] Simple Grab
[ ] Time Composite
[X] Flow Composite
[X] Grab for pH / CN-
[ ] TTO
[X] BLANK CYANIDE/METALS

Anal.	Limit	Mg/l	By	Date	Anal.	Limit	Mg/l	By	Date
pH	6 - 9	8.58	DD	1-4-89	Zn	12.00	0.32	RLB	1/26/89
Cd	1.20	0.07	RLB	1/26/89	CN-	2.00	See Note	[illegible]	1-5-89
Cr	7.50	0.01	DJP	1/27/89	TTO	0.00	N/A	[illegible]	12·22·88
Cu	4.50	0.04	RLB	1/26/89					
Pb	15.00	0.09	RLB	1/06/89					
Ni	15.00	0.20	DJP	1/27/89					
Ag	0.25	<0.01	RLB	1/26/89					

Lab Notes
Sample lost during distillation - Vacuum problem.
Annie M. Kirk

Wayne J. Parker — Certified By
1/31/89 — Date
8:00 AM — Time

Chain of Custody

From [illegible] To RC Wendell Date 1-4-89 Time 12:15
From _____ To _____ Date _____ Time _____
From _____ To _____ Date _____ Time _____

==========Pretreatment Use Only==========

By _____ Init _____ Date Computer _____ Init _____ Date FDB _____ Init _____ Date File _____ Init _____ Date

AS ABOVE MONITORING
495 EAST 51ST AVENUE

Attach a copy of this list to each analytical report, and supply ALL information listed below for each monitoring event.

CITY SAMPLE

1. Sample Date: 4-4-89 - 4-5-89

2. Sample Time: 7:30 AM TO 7:30 AM

3. Sample Type:

   a. Grab

   b. Time Composite

   c. Flow Composite

4. Sampling Location 001 CONTROL MANHOLE
   (At a minimum, samples should be from ALL Monitoring Points identified in your Wastewater Contribution Permit.)

5. Results of ALL analysis performed on samples. (Minimum requirement to include all parameters identified in the Permit under Self-monitoring requirements.) SEE ATTACHED

6. ALL required flow data (measured or estimated):

   a. Average daily flow at Monitoring Point(s) 28646 GALLON

   b. Maximum daily flow at Monitoring Point(s)

PRETREATMENT ROUTING RECORD

APR 18 '89 FDB

ACCT. NO. S 0540 ITEM S/L Reports REC'D BY ___ DATE ___

TO	✓	NAME	Initial	DATE Rec'd	DATE Comp	COMMENTS
Pretreat Coordinator						
Account Represent.	✓	Yulonda	YEA	4/18		
Computer Input	✓		mf		4/20/89	
FILES	✓	YULONDA	YEA	4/20	4/20	Filed
Copy to METRO	✓	YULONDA	YEA	4/20	4/20	Copy to metro
Copy to EPA						
Copy to DIRECTOR						
Copy to USER	✓	YULONDA	YEA	4/20	4/20	Copy to user
Account Rep.						

WMD 4469

RECEIVED
APR 27 1989
GLOBE PLANT

SAMPLING REQUEST

DENVER. 80216

COMPANY
ASARCO INCORPORATED

ADDRESS
495 E 51ST AVE.

ACCT NO
S 0540

MANAGER
LARRY G. EAGAN

PHONE
296-6381

PRETREAT REP.
HARRISON

CLASS: SIGNIFICANT USER
DESCRIPTION OF BUSINESS:
CADMIUM METAL REFINERY

SAMPLING LOCATION
CONTROL MANHOLE INSTALLED LOCATED EAST 200FT FROM OFFICE.

CAUTION: DISCHARGE WASTES FROM THIS INDUSTRY MAY CONTAIN HAZARDOUS OR TOXIC SUBSTANCES. APPROPRIATE SAFETY PRECAUTIONS SHOULD BE OBSERVED WHILE GATHERING AND HANDLING THESE WASTES.

REQUESTED BY FDB 3.27.89 TO CWH C.W.H. APR 12 1989 ~~TO AER~~ _____

DATE REQUESTED: 3 /30/89 APR 17 '89 FDB

SPECIAL HANDLING REQUIRED: _____

[ ] SIMPLE GRAB
[ ] TIME COMPOSITE
[X] FLOW COMPOSITE
[X] GRAB FOR pH / CN-
[ ] 3 DAY FLOW MEAS.
[ ] TTO
[X] BLANK CYANIDE/METALS

DATE SAMPLED: 4/14/15-89

SAMPLING / FLOW MONITORING CREW Anthony R. Mark C.

TIME SAMPLE STARTED 7:30a TIME SAMPLE COMPLETED 7:30a

SAMPLE VOLUME 3952 ML.

30 MINUTE PEAK FLOW 610 GPM. TOTAL 24 HOUR FLOW 28646 GAL.

pH GRAB TIME 7:20a DATE 4/4/87

CYANIDE GRAB TIME 7:30a DATE 4/4/87

FIELD GRAB TIME 11:30 DATE 4/4/87

SAMPLE SPLIT WITH ASARCO

SAMPLE PRESERVED WITH _____

FIELD NOTES:

DELIVERED TO [signature] TIME 11:30a DATE 4/15/89

========== PRETREATMENT USE ONLY ==========

BY ____/_____ COMPUTER ____/_____ FDB ____/_____ FILE ____/_____
INIT DATE INIT DATE INIT DATE INIT DATE

FORM: SAMPFORM.PRG

12
MIDNIGHT
FISCHER & PORTER CO.
WARMINSTER, PA.
211-5008
1 PM
2 PM
3 PM
4 PM
5 PM
5 PM

WASTEWATER MANAGEMENT DIVISION CITY AND COUNTY OF DENVER	Project No. ____ Sub Area No. ____	Area File No. ____ Work Order No. ____
Location HSARCO		Calc. by ____ Date 4-5-89 Chkd. by ____ DATE APR 1 2 1989

DATE 4-5-89 ☐ FLOW MEASUREMENT ONLY ☑ FLOW MEAS. & SAMPLE

LINE SIZE 8" SLOPE ____ MEASURING DEVICE 5PBF

RECORDER 0-15 FISCHER CREW ANTHONY, R MARK, C

*Indicates starting time of flow measurement.

TIME	HRLY. AVRG.	HD FT	GPM	GPH	d/E	q/Q	%	AMT to COMP	MULTPR.	ACTL COMP
7 AM	0.3	.03	2.3	136			.004			16
8	0.6	.07	8.7	520			.018			72
9	0.9	.09	11.0	655			.022			88
10	0.7	.06	6.7	399			.013			52
11	.07	.06	6.7	399			.013			52
12 PM	.09	.07	8.7	520			.018			72
1	0.7	.06	6.7	399			.013			52
2	0.6	.05	5.0	299			.010			40
3	1.4	.12	22.6	1355			.047			188
4	1.5	.13	25.8	1543			.053			212
5	2.1	.18	46.2	2769			.096			384
6	1.7	.14	29.2	1752			.061			244
7	1.3	.11	19.4	1160			.040			160
8	0.9	.09	11.0	655			.022			88
9	2.5	.21	61.0	3657			.127			508
10	2.2	.18	46.2	2769			.096			384
11	2.5	.21	61.0	3657			.127			508
12 AM	2.4	.20	56.0	3364			.117			468
1	1.8	.15	33.3	1994			.069			276
2	0.9	.09	11.0	655			.022			88
3	0	0	0	0			0			0
4	0	0	0	0			0			0
5	0	0	0	0			0			0
6 AM	0	0	0	0			0			0
			TOTALS	25646			.888			3952

METER READINGS IF APPLICABLE

	1	2	3
FINISH			
START			
TOTAL			

ADDITIONAL INFO. ____

STANDARD FLOW MEASUREMENT COMPUTATION SHEET

LAB ANALYSIS REQUEST

Company
ASARCO INCORPORATED
Manager
LARRY G. EAGAN

Address
495 E 51ST AVE.
Phone
296-6381

Pretreat Rep
HARRISON

Acct Num
0540

Sample Number: 89-04-05-07

Description of Business
CADMIUM METAL REFINERY
Business Class
SIGNIFICANT USER

Sample Requested: 3.30.89

Sample Date: 4/4-5/89

Requested By: BB Date: 3.21.89

Lab Analysis Notes

APR 17 '89 FDB

Special Handling Req'd:

Sample Preserved With:
CN - NaOH
Metals HNO3

[ ] Simple Grab
[ ] Time Composite
[X] Flow Composite
[X] Grab for pH / CN-
[ ] TTO
[X] BLANK CYANIDE/METALS

Anal.	Limit	Mg/l	By	Date	Anal.	Limit	Mg/l	By	Date
pH	6 - 9	7.87	DMH	4-5-89	Zn	12.00	1.34	DMH	4-17-89
Cd	1.20	0.14	DMH	4-17-89	CN-	2.00	0.03	DMH GD	4.13-89
Cr	7.50	0.05	DMH	4-18-89	TTO	0.00	N/A	BB	3.21.89
Cu	4.50	0.05	DMH	4-17-89					
Pb	15.00	0.54	DMH	4-18-89					
Ni	15.00	0.23	DMH	4-18-89					
Ag	0.25	0.02	DMH	4-17-89					

Lab Notes
Split CN sample and metals for Asarco

Fayne J. Poole — Certified By
4/18/89 — Date
Time

Chain of Custody

From Anthony K To Janie McBride Date 4-5-89 Time 11:30A

From _____ To _____ Date _____ Time _____

From _____ To _____ Date _____ Time _____

==========Pretreatment Use Only==========

By _____ Init _____ Date Computer _____ Init _____ Date FDB _____ Init _____ Date File _____ Init _____ Date

Industrial Compliance Report

Reporting Period: JUN 15 1988 to DEC 15 1988, 19__.

Section A. Industry Information

Name of Industry: ASARCO INCORPORATED
Mailing Address : 495 E 51ST AVE.
DENVER, COLORADO 80216

Person submitting report LARRY G. EAGAN

Section B. Analytical Results of Sampling Events

Attach results of ALL sampling events for reporting period. Each sampling event must include the following information:

1. Sample Date
2. Sample Time
3. Sample Type:
   a. Grab
   b. Time Composite
   c. Flow Composite
4. Sampling Location
   (At a minimum, samples should be from ALL Monitoring Points identified in your 001 Wastewater Contribution Permit.)
5. Results of ALL analysis performed on samples.
   (Minimum requirement to include all parameters

SEE ATT

identified in the Permit under Self-monitoring requirements.)

6. ALL required flow data (measured or estimated):

   a. Average daily flow at Monitoring Point(s)

   b. Maximum daily flow at Monitoring Point(s)

Section C. Non-Discharge Wastes

If your firm disposed of any non domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information.

	Type of waste	Volume	Pick-up Date	Hauling Firm
1.	NONE			
2.				
3.				
4.				
5.				
6.				

Section D. Statement of Compliance or Noncompliance

Complete and sign statement 1 or 2.

1. Based on the information contained on this compliance report and my own personal knowledge, the business identified in Section A of this report is consistently meeting all federal and local pretreatment standards as set forth in the Wastewater Contribution Permit issued to this company.

Signature Larry G Eagan

Name (print) LARRY G. EAGAN

Title PLANT MANAGER Date 12-13-88

2. Based on the information contained on this compliance report and my own personal knowledge, the business identified in Section A of this report is not consistently meeting federal and local pretreatment standards as set forth in the Wastewater Contribution Permit issued to this company. Additional operations and maintenance, and/or adequate pretreatment to meet these requirements, will be implemented as soon as possible. A compliance schedule outlining the specific actions we will take is attached. This schedule represents the shortest reasonable time frame within which we can meet these requirements. I understand that this compliance schedule in no way releases my firm from further administrative and/or legal actions that may be taken by the City and County of Denver or other applicable State or Federal Agencies.

Signature _____

Name (print) _____

Title _____ Date _____

Section E. Total Toxic Organics Certification Statement

As an alternative to monitoring total toxic organics (TTO's) to determine compliance with the TTO standards that may be required for certain industries, some industries, with the approval of the City and County of Denver, may complete the following statement.

Based on my inquiry of the person or persons directly responsible for managing compliance the pretreatment standards for total toxic organics (TTO's), I certify that to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewater has occurred since filing of the last required compliance report. I further certify that this facility is implementing the Toxic Organic Management Plan most recently submitted to and approved by the City and County of Denver.

Signature Larry G. Eagan

Name (print) LARRY G. EAGAN

Title PLANT MANAGER Date 12-13-88

Section F. Statement of Accuracy and Completeness

Based upon my inquiries of the persons submitting information contained in this report and my own personal beliefs, the information contained in this report is accurate and true and represents the typical discharge from this firm to the sanitary sewer system of the City and County of Denver.

Signature Larry G. Eagan

Name (print) LARRY G. EAGAN

Title PLANT MANAGER Date 12-13-88

November 30, 1988

File: 2.45.5.2

Mr. Y. Harrison,
Denver North Side Treatment
5100 North Mariron
Denver Colorado 80216

Sanitary Sewer Self-Monitoring
Six Month Flow Measurement Monitoring

Mr. Harrison,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following date:

STARTING DATE: 11/14/88 STARTING TIME: 1233
ENDING DATE: 11/15/88 ENDING TIME: 1233

A 24 hour flow measurement was taken and following paramenters were calcuated from the data:

TOTAL FLOW FOR 24 HR. 30760 gallons
AVERAGE DAILY FLOW FOR 24 HR. 0.356 gal/sec
MAXIMUM DAILY FLOW FOR 24 HR. 1.41 gal/sec

NUMBER OF TANKS DISCHARGED 2 tanks

E.C. PUGH
Technical Services Manager

November 30, 1988

File: 2.45.5.2

Mr. Y. Harrison,
Denver North Side Treatment
5100 North Mariron
Denver Colorado 80216

Sanitary Sewer Self-Monitoring
Six Month Metals Monitoring

Mr. Harrison,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following date:

STARTING DATE:11/15/88 STARTING TIME: 1247
ENDING DATE:11/16/88 ENDING TIME: 1247

A 24 hour flow composite sample was collected and the following perameters were analyzed:

TOTAL FLOW FOR 24 HR. 33390 gallons

Cadmium	(Cd) total	0.12	(ppm)
Chromium	(Cr) total	0.020	(ppm)
Copper	(Cu) total	0.16	(ppm)
Lead	(Pb) total	0.080	(ppm)
Nickel	(Ni) total	0.025	(ppm)
Zinc	(Zn) total	0.46	(ppm)
Silver	(Ag) total	0.010	(ppm)

GRAB SAMPLES FOR CN- and pH:

Cyanide (CN) total 0.004 (ppm)
pH 7.70

E.C. PUGH
Technical Services Manager

File: 2.45.5.2

Mr. Y. Harrison,
Denver North Side Treatment
5100 North Mariron
Denver Colorado 80216

Sanitary Sewer Self-Monitoring
Bi-Monthly Cadmium monitoring

Mr. Harrison,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following date:

STARTING DATE:7/18/88 STARTING TIME:0835
ENDING DATE:7/19/88 ENDING TIME:0835

A 24 hour flow composite sample was collected and the following parameters were analyzed for:

TOTAL FLOW FOR 24 HR.	13480 gallons
AVERAGE DAILY FLOW FOR 24 HR.	0.16 gal/sec
MAXIMUM DAILY FLOW FOR 24 HR.	0.64 gal/sec

NUMBER OF TANKS DISCHARGED 0 tanks

Cadmium (Cd) Total 0.030 (ppm)

E.C. PUGH
Technical Services Manager

File: 2.45.5.2

Mr. Y. Harrison,
Denver North Side Treatment
5100 North Mariron
Denver Colorado 80216

Sanitary Sewer Self-Monitoring
Bi-Monthly Cadmium monitoring

Mr. Harrison,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following date:

STARTING DATE:9/26/88 STARTING TIME:1015
ENDING DATE:9/27/88 ENDING TIME:1015

A 24 hour flow composite sample was collected and the following parameters were analyzed for:

TOTAL FLOW FOR 24 HR.	29910 gallons
AVERAGE DAILY FLOW FOR 24 HR.	0.35 gal/sec
MAXIMUM DAILY FLOW FOR 24 HR.	1.44 gal/sec

NUMBER OF TANKS DISCHARGED 3 tanks

Cadmium (Cd) Total 0.140 (ppm)

E.C. PUGH
Technical Services Manager

SAMPLING REQUEST

COMPANY
ASARCO INCORPORATED

ADDRESS DENVER COLO 80216
495 E 51ST AVE.

ACCT NO
S 0540

MANAGER
LARRY G. EAGAN

PHONE
296-6381

PRETREAT REP.
HARRISON

CLASS: SIGNIFICANT USER
DESCRIPTION OF BUSINESS:
CADMIUM METAL REFINERY

SAMPLING LOCATION
CONTROL MANHOLE INSTALLED LOCATED EAST 200FT FROM OFFICE.

CAUTION: DISCHARGE WASTES FROM THIS INDUSTRY MAY CONTAIN HAZARDOUS OR TOXIC SUBSTANCES. APPROPRIATE SAFETY PRECAUTIONS SHOULD BE OBSERVED WHILE GATHERING AND HANDLING THESE WASTES.

REQUESTED BY FDB 9-27-88 THRU HAS_____ TO CWH/AER C.W.H. OCT 3 1988

DATE REQUESTED: 9/29/88 OCT 6 '88 FUD

SPECIAL HANDLING REQUIRED:_____

[ ] SIMPLE GRAB
[ ] TIME COMPOSITE
[X] FLOW COMPOSITE
[X] GRAB FOR pH / CN-
[ ] 3 DAY FLOW MEAS.
[ ] TTO

DATE SAMPLED: 9-27, 28-88

SAMPLING / FLOW MONITORING CREW A. Rodriguez Mark C

TIME SAMPLE STARTED 10:00 AM TIME SAMPLE COMPLETED 10:00 AM

SAMPLE VOLUME 3940 ML.

30 MINUTE PEAK FLOW 22.6 GPM. TOTAL 24 HOUR FLOW 13160 GAL.

FIELD pH 7.25 TIME 10:00 DATE 9-28-88

CYANIDE GRAB TIME 10:00 AM DATE 9-28-88

SAMPLE SPLIT WITH ASARCO

SAMPLE PRESERVED WITH NO

FIELD NOTES:

DELIVERED TO Lance McAlexis TIME 11:15 am DATE 9-28-88

========== PRETREATMENT USE ONLY ==========

BY ____/_____ COMPUTER ____/_____ FDB ____/_____ FILE ____/_____
INIT DATE INIT DATE INIT DATE INIT DATE

FORM: SAMPFORM.PAS

LAB ANALYSIS REQUEST

mpany ARCO INCORPORATED	Address 495 E 51ST AVE.	Acct Num 0540
nager RRY G. EAGAN	Phone 296-6381	Pretreat Rep HARRISON

Sample Number: 88-09-28-04

Sample Requested: 9.29.88

Sample Date: 9/27-28/88

Requested By: RB Date: 9.21.88

scription of Business
DMIUM METAL REFINERY
siness Class
GNIFICANT USER

Lab Analysis Notes

ecial Handling Req'd: split by Smith to Rodriguez

mple Preserved With:
NaOH - CN
HNO3 - metals

[ ] Simple Grab
[ ] Time Composite
[X] Flow Composite
[X] Grab for pH / CN-
[ ] TTO

Anal.	Limit	Mg/l	By	Date	Anal.	Limit	Mg/l	By	Date
pH	6 - 9	7.65	JMH	9-28-88	Zn	12.00	0.50	RLB	10/5/88
Cd	1.20	0.18	RLB	10/5/88	CN-	2.00	<0.01	JMH	10-27-88
Cr	7.50	<0.04	RLB	10/5/88	TTO	0.00			
Cu	4.50	0.06	RLB	10/5/88					
Pb	15.00	0.146	RLB	10/5/88					
Ni	15.00	<0.05	RLB	10/5/88					
Ag	0.25	<0.02	RLB	10/5/88					

ab Notes

Certified By: Jayne J. Paulk Date: 11/1/88 Time: 2:00 PM

Chain of Custody

From A. Rodriguez To Jamie M. Hris Date 9-28-88 Time 11:18 am

From _____ To _____ Date _____ Time _____

From _____ To _____ Date _____ Time _____

==========Pretreatment Use Only==========

By ____ Init ____ Date Computer ____ Init ____ Date FDB ____ Init ____ Date File ____ Init ____ Date

WASTEWATER MANAGEMENT DIVISION CITY AND COUNTY OF DENVER	Project No. ____ Sub Area No. ____	Area File No. ____ Work Order No. ____
Location: 15 ARCO		Calc. by: [illegible] Date: 9-28-[illegible] Chkd. by: S.C. Date: 9/28/[illegible]

DATE 9-27-28-88 ☐ FLOW MEASUREMENT ONLY ☑ FLOW MEAS. & SAMPLE

LINE SIZE 8" SLOPE ____ MEASURING DEVICE 8" PBF

RECORDER 0-15 FISCHER CREW [illegible] MARK, C

*Indicates starting time of flow measurement.

TIME	HRLY. AVRG.	HD FT	GPM	GPH	d/E	q/Q	%	AMT to COMP	MULTPR.	ACTL COMP
7 AM	0.9	.08	11.0	655			.049		4000	196
8	0.6	.05	5.0	298			.022			88
9	0.6	.05	5.0	298			.022			88
10	0.5	.04	3.6	210			.015			60
11	0.5	.04	3.6	210			.015			60
12 PM	0.5	.04	3.6	210			.015			60
1	0.4	.03	2.3	136			.010			40
2	0.7	.06	6.7	399			.030			120
3	0.8	.07	8.7	520			.039			156
4	0.5	.04	3.6	210			.015			60
5	0.4	.03	2.3	136			.010			40
6	0.8	.07	8.7	520			.039			156
7	1.1	.09	13.3	796			.060			240
8	1.0	.08	11.0	655			.049			196
9	1.0	.08	11.0	655			.049			196
10	1.2	.10	16.1	964			.073			292
11	1.4	.12	22.6	1355			.102			408
12 AM	1.2	.10	16.1	964			.073			292
1	1.2	.10	16.1	964			.073			292
2	1.0	.08	11.0	655			.049			196
3	1.0	.08	11.0	655			.049			196
4	0.8	.07	8.7	520			.039			156
5	0.8	.07	8.7	520			.039			156
6 AM	0.9	.08	11.0	655			.049			196
			TOTALS	13160			.995			3940

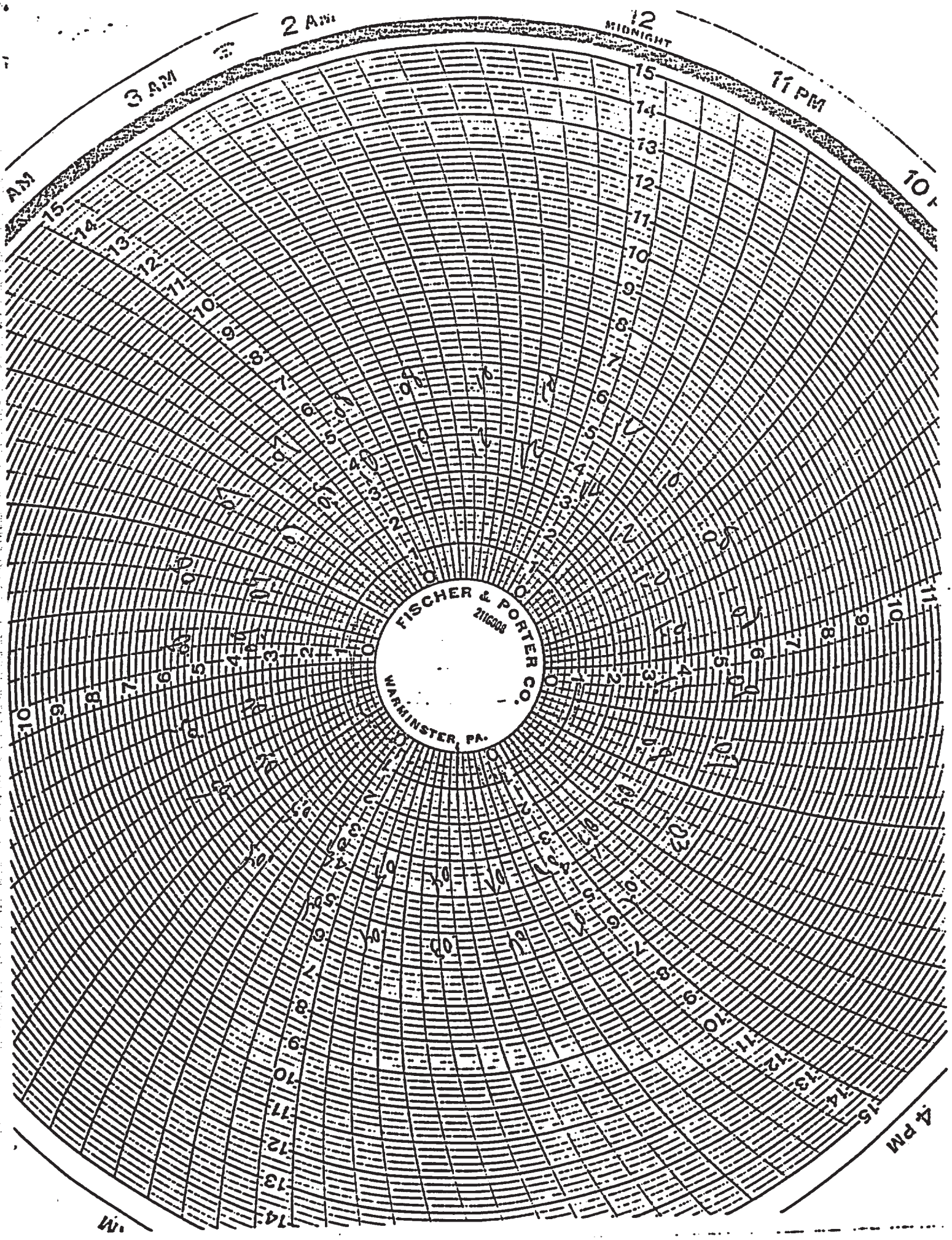
METER READINGS IF APPLICABLE

	1	2	3
FINISH			
START			
TOTAL			

ADDITIONAL INFO. ____

STANDARD FLOW MEASUREMENT COMPUTATION SHEET

WMD 4441 (8/82)


FISCHER & PORTER CO.
WARMINSTER, PA.
2 AM
3 AM
12
MIDNIGHT
11 PM
10 P
4 PM

BI ANNUAL

Industrial Compliance Report

Reporting Period: January to June, 1988.

Section A. Industry Information

Name of Industry: ASARCO Incorporated

Mailing Address : 495 East 51st Avenue

Denver, Colorado 80216

Person submitting report LARRY G. EAGAN

Section B. Analytical Results of Sampling Events (See Attachments)

Attach results of ALL sampling events for reporting period. Each attachment should contain the following information:

1. Sample Date
2. Sample Time
3. Sample Type:
   a. Grab
   b. Time Composite
   c. Flow Composite
4. Sampling Location

   (At a minimum, samples should be from ALL Monitoring Points identified in your Wastewater Contribution Permit.)
5. Results of ALL analysis performed on samples.

   (Minimum requirement to include all parameters

identified in the Permit under Self-monitoring requirements.)

6. ALL required flow data (measured or estimated):

   a. Average daily flow at Monitoring Point(s)

   b. Maximum daily flow at Monitoring Point(s)

Section C. Non-Discharge Wastes

If your firm disposed of any non domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information.

	Type of waste	Volume	Pick-up Date	Hauling Firm
1.	NONE			
2.				
3.				
4.				
5.				
6.				

Section D. Statement of Compliance or Noncompliance

Complete and sign statement 1 or 2.

1. Based on the information contained on this compliance report and my own personal knowledge, the business identified in Section A of this report is consistently meeting all federal and local pretreatment standards as set forth in the Wastewater Contribution Permit issued to this company.

Signature Larry G Eagan

Name (print) LARRY G. EAGAN

Title Plant Manager Date 6-7-88

2. Based on the information contained on this compliance report and my own personal knowledge, the business identified in Section A of this report is not consistently meeting federal and local pretreatment standards as set forth in the Wastewater Contribution Permit issued to this company. Additional operations and maintenance, and/or adequate pretreatment to meet these requirements, will be implemented as soon as possible. A compliance schedule outlining the specific actions we will take is attached. This schedule represents the shortest reasonable time frame within which we can meet these requirements. I understand that this compliance schedule in no way releases my firm from further administrative and/or legal actions that may be taken by the City and County of Denver or other applicable State or Federal Agencies.

Signature _____

Name (print) _____

Title _____ Date _____

Section E. Total Toxic Organics Certification Statement

As an alternative to monitoring total toxic organics (TTO's) to determine compliance with the TTO standards that may be required for certain industries, some industries, with the approval of the City and County of Denver, may complete the following statement.

Based on my inquiry of the person or persons directly responsible for managing compliance the pretreatment standards for total toxic organics (TTO's), I certify that to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewater has occurred since filing of the last required compliance report. I further certify that this facility is implementing the Toxic Organic Management Plan most recently submitted to and approved by the City and County of Denver.

Signature Larry G. Eagan

Name (print) LARRY G. EAGAN

Title Plant Manager Date 6-7-88

Section F. Statement of Accuracy and Completeness

Based upon my inquiries of the persons submitting information contained in this report and my own personal beliefs, the information contained in this report is accurate and true and represents the typical discharge from this firm to the sanitary sewer system of the City and County of Denver.

Signature Larry G Eagan

Name (print) LARRY G. EAGAN

Title Plant Manager Date

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

ASARCO Incorporated
Globe Plant

Report No. 1-88

Monitoring Point 001

FLOW DATA

Sample Date 1/24/88- 1/25/88
Sample Time 1130 - 1130
Total Flow Over 24 Hour Period 18840 gallons
Maximum Flow Rate During That 24 Hours 1.10 gal./sec.
Average Daily Flow Rate 0.218 gal./sec.

All flow data was measured using an ISCO 2870 Flow Meter.

SAMPLE DATA

Sample Date 1/25/88 - 1/26/88
Sample Time 1315 - 1315
Total Flow Over 24 Hour Period 47280 gallons
Number of Tanks Discharged During Sample Period 3
Number of Samples Taken During Sample Period 59
Total Volume of Sample Collected 10850 ml

All samples were collected using an ISCO 1680 Sampler in conjunction with the 2870 Flow Meter to obtain a flow composite sample.

ANALYSIS

Total Metals (ppm)

Cadmium	(Cd)	0.18
Copper	(Cu)	0.010
Lead	(Pb)	0.25
Nickel	(Ni)	0.050
Zinc	(Zn)	1.80
pH		8.40

Comments:

Duane Yantorno
DUANE YANTORNO
Environmentalist/Chemist

DY:md

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

ASARCO Incorporated
Globe Plant

Report No. 2-88

Monitoring Point 001

FLOW DATA

Sample Date 2/23/88 2/24/88
Sample Time 0751
Total Flow Over 24 Hour Period 16670 gallons
Maximum Flow Rate During That 24 Hours 1.52 gals/sec.
Average Daily Flow Rate 0.192 gals/sec.

All flow data was measured using an ISCO 2870 Flow Meter.

SAMPLE DATA

Sample Date 2/22-23/88
Sample Time 0740-0740
Total Flow Over 24 Hour Period 32110 gallons
Number of Tanks Discharged During Sample Period 32
Number of Samples Taken During Sample Period 18
Total Volume of Sample Collected 3350 ml

All samples were collected using an ISCO 1680 Sampler in conjunction with the 2870 Flow Meter to obtain a flow composite sample.

ANALYSIS

Total Metals (ppm)	
Cadmium (Cd)	0.32
Copper (Cu)	0.010
Lead (Pb)	0.20
Nickel (Ni)	0.025
Zinc (Zn)	1.43
pH	8.20

Comments:

DUANE YANTORNO
Environmentalist/Chemist

DY:md

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

ASARCO Incorporated
Globe Plant

Report No. 3-88

Monitoring Point 001

FLOW DATA

Sample Date 3/15-16/88
Sample Time 1046
Total Flow Over 24 Hour Period 15840 gallons
Maximum Flow Rate During That 24 Hours 1.22 gal./sec.
Average Daily Flow Rate 0.183 gal. sec.

All flow data was measured using an ISCO 2870 Flow Meter.

SAMPLE DATA

Sample Date 3/14/88
Sample Time 0954
Total Flow Over 24 Hour Period 18360 gallons
Number of Tanks Discharged During Sample Period 3 tanks
Number of Samples Taken During Sample Period 18 samples
Total Volume of Sample Collected 2500 ml

All samples were collected using an ISCO 1680 Sampler in conjunction with the 2870 Flow Meter to obtain a flow composite sample.

ANALYSIS

Total Metals (ppm)	
Cadmium (Cd)	0.180
Copper (Cu)	0.025
Lead (Pb)	0.20
Nickel (Ni)	0.025
Zinc (Zn)	2.40
pH	8.45

Comments:

Duane Yantorno

DUANE YANTORNO
Environmentalist/Chemist

DY:md

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

ASARCO Incorporated
Globe Plant

Report No. 4-88

Monitoring Point 001

FLOW DATA

Sample Date 4/19/88
Sample Time 24 hours
Total Flow Over 24 Hour Period 15630 gallons
Maximum Flow Rate During That 24 Hours 1.07 gal/ sec.
Average Daily Flow Rate 0.18 gal./sec.

All flow data was measured using an ISCO 2870 Flow Meter.

SAMPLE DATA

Sample Date 4/20/88
Sample Time 24 hours
Total Flow Over 24 Hour Period 28340 gallons
Number of Tanks Discharged During Sample Period 4 tanks
Number of Samples Taken During Sample Period 18
Total Volume of Sample Collected 7660 ml

All samples were collected using an ISCO 1680 Sampler in conjunction with the 2870 Flow Meter to obtain a flow composite sample.

ANALYSIS

Total Metals (ppm)	
Cadmium (Cd)	0.100
Copper (Cu)	0.040
Lead (Pb)	0.20
Nickel (Ni)	<0.025
Zinc (Zn)	0.53
pH	8.20

Comments:

DUANE YANTORNO
Environmentalist/Chemist

DY:md

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

ASARCO Incorporated
Globe Plant

Report No. 5-88

Monitoring Point 001

FLOW DATA

Sample Date 5/19/88
Sample Time 0834
Total Flow Over 24 Hour Period 49460 gallons
Maximum Flow Rate During That 24 Hours 2.00 gal/sec
Average Daily Flow Rate 0.57 gal/sec

All flow data was measured using an ISCO 2870 Flow Meter.

SAMPLE DATA

Sample Date 5/18/88
Sample Time 0808
Total Flow Over 24 Hour Period 26450 gallons
Number of Tanks Discharged During Sample Period 3 tanks
Number of Samples Taken During Sample Period 18
Total Volume of Sample Collected 7850 ml

All samples were collected using an ISCO 1680 Sampler in conjunction with the 2870 Flow Meter to obtain a flow composite sample.

ANALYSIS

Total Metals (ppm)

Cadmium	(Cd)	0.310
Copper	(Cu)	0.030
Lead	(Pb)	0.40
Nickel	(Ni)	<0.025
Zinc	(Zn)	1.47
pH		8.8

Comments:

A pH sample was taken on 5/18/88 at 0740 before the sample event the pH was 7.4 .

Duane Yantorno
DUANE YANTORNO
Environmentalist/Chemist

DY:md

PRETREATMENT ROUTING RECORD

ACCT. NO. S0540 ITEM Sample/Lab results REC'D BY RB DATE 2-3-88

TO	✓	NAME	Initial	DATE Rec'd	DATE Comp	COMMENTS
Pretreat Coordinator						
Account Represent.	✓	Yolanda				
Computer Input	✓	Marie	mp		2/4/88	
FILES	✓	YOLANDA	YSA	2/5	2/5	Filed on
Copy to METRO	✓	YOLANDA	YSA	2/5	2/5	Copy to metro on
Copy to EPA						
Copy to DIRECTOR						
Copy to USER	✓	YOLANDA	YSA	2/5	2/5	Copy to user on
Account Rep.						

WMD 4469

SAMPLING REQUEST

COMPANY
ASARCO INCORPORATED

ADDRESS
495 E 51ST AVE.

ACCT NO
S 0540.

JAN 14 '88 FDB

MANAGER
LARRY G. EAGAN

PHONE
296-6381

PRETREAT REP.
HARRISON

CLASS:SIGNIFICANT USER
DESCRIPTION OF BUSINESS:
CADMIUM METAL REFINERY

SAMPLING LOCATION
CONTROL MANHOLE INSTALLED LOCATED EAST 200FT FROM OFFICE.

CAUTION: DISCHARGE WASTES FROM THIS INDUSTRY MAY CONTAIN HAZARDOUS OR TOXIC SUBSTANCES. APPROPRIATE SAFETY PRECAUTIONS SHOULD BE OBSERVED WHILE GATHERING AND HANDLING THESE WASTES.

REQUESTED BY FDB ~~BRZ~~ THRU HAS 12/21/87 TO CWH/ CWH JAN 11 1988

DATE REQUESTED: 1/7/88

SPECIAL HANDLING REQUIRED: _____

[ ] SIMPLE GRAB
[ ] TIME COMPOSITE
[X] FLOW COMPOSITE
[X] GRAB FOR pH / CN-
[ ] 3 DAY FLOW MEAS.

DATE SAMPLED: 1/6/88

SAMPLING / FLOW MONITORING CREW Egly - Rodriguez

TIME SAMPLE STARTED 10:00A TIME SAMPLE COMPLETED 10:00A

SAMPLE VOLUME 3,972 ML.

30 MINUTE PEAK FLOW 16.06 GPM. TOTAL 24 HOUR FLOW 7,084 GAL.

FIELD pH _____ TIME _____ DATE _____

No Field unit available on this date. CWH.

SAMPLE SPLIT WITH ARSARCO

SAMPLE PRESERVED WITH _____

FIELD NOTES:

DELIVERED TO Ray Brown LAB TIME 11:20 Am DATE 01/07/88

========== PRETREATMENT USE ONLY ==========

BY ____/_____ COMPUTER ____/_____ FDB ____/_____ FILE ____/_____
INIT DATE INIT DATE INIT DATE INIT DATE

FORM: SAMPFORM.PRG

LAB ANALYSIS REQUEST

MPANY
ARCO INCORPORATED

ADDRESS
495 E 51ST AVE.

ACCT NUM
0540

NAGER
RRY G. EAGAN

PHONE
296-6381

PRETREAT. REP.
HARRISON

F
SAMPLE NUMBER: 88-01-07-03

SAMPLE REQUESTED: 12-28-87-0

SCRIPTION OF BUSINESS
ASS: SIGNIFICANT USER
DMIUM METAL REFINERY

SAMPLE DATE: FEB 3 '88 FDB

REQUESTED BY: RB DATE 12-21-87
GRAB pH, GRAB CN⁻, FLOW

LAB ANALYSIS NOTES

ECIAL HANDLING REQUIRED:

MPLE PRESERVED WITH: METALS - HNO_3
CN^- - NaOH

ALYSIS REQ'D	MG/L	LIMITS	BY	ANALYSIS REQ'D	MG/L	LIMITS	BY
pH	7.86	6 TO 9	RB/JJP	Zn	0.08	12.000	JJP
Cd	0.07	1.200	JJP	CN-	0.15	2.000	JMH
Cr	0.02	7.500	JJP				
Cu	0.08	4.500	JJP				
Pb	0.37	15.000	JJP				
Ni	0.26	15.000	JJP				
Ag	0.03	0.250	JJP				

S NOTES

RTIFIED BY Jayne J. Parch DATE 1 / 29 / 88 TIME 3:00 PM

CHAIN OF CUSTODY

OM C. Eglin TO Ray Kreuer DATE 01 / 07 / 88 TIME 11:20 AM

OM ____ TO ____ DATE ___/___/___ TIME ____

OM ____ TO ____ DATE ___/___/___ TIME ____

PRETREATMENT USE ONLY

BY ___/___ COMPUTER ___/___ FDB ___/___ FILE ___/___
INIT DATE INIT DATE INIT DATE INIT DATE

PRETREATMENT ROUTING RECORD

ACCT. NO. S0540 ITEM Sample/Lab results REC'D BY [illegible] DATE 4.13.88

TO	✓	NAME	Initial	DATE Rec'd	DATE Comp	COMMENTS
Pretreat Coordinator						
Account Represent.	✓	MWBrade				
Computer Input	✓		mp		4/18/88	
FILES	✓	YULONDA	YEA	4/14	4/14	Filed oc
Copy to METRO	✓	YULONDA	YEA	4/14	4/14	Copy to metro oc
Copy to EPA						
Copy to DIRECTOR						
Copy to USER	✓	YULONDA	YEA	4/14	4/14	Copy to user oc
Account Rep.						

WMD 4165

SAMPLING REQUEST

COMPANY
ASARCO INCORPORATED

ADDRESS
495 E 51ST AVE.

ACCT NO
S 0540

MANAGER
LARRY G. EAGAN

PHONE
296-6381

PRETREAT REP.
HARRISON

CLASS: SIGNIFICANT USER
DESCRIPTION OF BUSINESS:
CADMIUM METAL REFINERY

SAMPLING LOCATION
CONTROL MANHOLE INSTALLED LOCATED EAST 200FT FROM OFFICE.

CAUTION: DISCHARGE WASTES FROM THIS INDUSTRY MAY CONTAIN HAZARDOUS OR TOXIC SUBSTANCES. APPROPRIATE SAFETY PRECAUTIONS SHOULD BE OBSERVED WHILE GATHERING AND HANDLING THESE WASTES.

REQUESTED BY FDB 3-28-88 THRU HAS N/A TO CWH/AER CWH APR 5 1988

DATE REQUESTED: 03/31/88 APR 7 '88 FDB

SPECIAL HANDLING REQUIRED: _____

[ ] SIMPLE GRAB
[ ] TIME COMPOSITE
[X] FLOW COMPOSITE
[X] GRAB FOR pH CN-
[ ] 3 DAY FLOW MEAS.

DATE SAMPLED: 3/25/29 88

SAMPLING / FLOW MONITORING CREW D. Rodriguez C.E.

TIME SAMPLE STARTED 7:30a TIME SAMPLE COMPLETED 1:30a

SAMPLE VOLUME 3900 ML.

30 MINUTE PEAK FLOW 258 GPM. TOTAL 24 HOUR FLOW 10,753 GAL.

FIELD pH _____ TIME _____ DATE _____

CYANIDE GRAB TIME 8:00a DATE 3-29-88

SAMPLE SPLIT WITH No

SAMPLE PRESERVED WITH No

FIELD NOTES:

DELIVERED TO Parker TIME 10:30a DATE 3/29/88

========== PRETREATMENT USE ONLY ==========

BY ____/_____ COMPUTER DD/4/19/88 FDB ____/_____ FILE ____/_____
INIT DATE INIT DATE INIT DATE INIT DATE

FORM: SAMPFORM.PRG

WATER MANAGEMENT DIVISION CITY AND COUNTY OF DENVER	Project No. ____ Sub Area No. ____	Area File No. ____ Work Order No. ____
Location: US ARCO		Calc. by RL Date 3-29-88 Chkd. by ____ Date ____

DATE 3-28-29-88 ☐ FLOW MEASUREMENT ONLY ☑ FLOW MEAS. & SAMPLE

LINE SIZE 8" SLOPE ____ MEASURING DEVICE 8" WBF

RECORDER 0-15 FISCHER CREW Anthony R. Chyle

*Indicates starting time of flow measurement.

TIME	HRLY. AVRG.	HD FT	GPM	GPH	d/E	q/Q	%	AMT to COMP	MULTPR.	ACTL COMP
7 AM	0.8	.07	8.7	520			.031		4000	192
8	0.7	.06	6.7	399			.037			148
9	1.2	.10	16.1	964			.089			356
10	1.5	.13	25.8	1543			.143			572
11	1.2	.10	16.1	964			.089			356
12 PM	1.2	.10	16.1	964			.089			356
1	1.3	.11	19.4	1160			.107			428
2	1.1	.09	13.3	796			.074			296
3	0.9	.08	11.0	655			.060			240
4	0.5	.04	3.6	210			.019			76
5	0.4	.03	2.3	136			.012			48
6	0.5	.04	3.6	210			.019			76
7	0.5	.04	3.6	210			.019			76
8	.04	.03	2.3	136			.012			48
9	.04	.03	2.3	136			.012			48
10	.0.7	.06	6.7	399			.037			148
11	0.7	.06	6.7	399			.037			148
12 AM	0.4	.03	2.3	136			.012			48
1	0.4	.03	2.3	136			.012			48
2	0.4	.03	2.3	136			.012			48
3	.0.4	.03	2.3	136			.012			48
4	0.4	.03	2.3	136			.012			48
5	0.4	.03	2.3	136			.012			48
6 AM	0.4	.03	2.5	136			.012			48
			TOTALS	10,753			.987			3948.

METER READINGS IF APPLICABLE

	1	2	3
FINISH			
START			
TOTAL			

ADDITIONAL INFO. ____

STANDARD FLOW MEASUREMENT COMPUTATION SHEET

WMD 4441 (8/82)

LAB ANALYSIS REQUEST

COMPANY
ASARCO INCORPORATED

ADDRESS
495 E 51ST AVE.

ACCT NUM
0540

MANAGER
LARRY G. EAGAN

PHONE
296-6381

PRETREAT. REP.
HARRISON

F
SAMPLE NUMBER: 88-03-29-04

SAMPLE REQUESTED: 03.31.88

SAMPLE DATE:

REQUESTED BY: [illegible] DATE 3.21.88

DESCRIPTION OF BUSINESS
CLASS: SIGNIFICANT USER
CADMIUM METAL REFINERY

LAB ANALYSIS NOTES APR 13 '88 FDB

SPECIAL HANDLING REQUIRED:

SAMPLE PRESERVED WITH: CN⁻ — NaOH
Metals — HNO_3

[ ] SIMPLE GRAB
[ ] TIME COMPOSITE
[X] FLOW COMPOSITE
[X] GRAB FOR pH / CN-

ANALYSIS REQ'D	MG/L	LIMITS	BY	ANALYSIS REQ'D	MG/L	LIMITS	BY
pH	7.96	6 TO 9	JJP	Zn	0.76	12.000	RLB
Cd	0.13	1.200	RLB	CN-	0.01	2.000	RLB
Cr	<0.01	7.500	RLB				
Cu	0.05	4.500	RLB				
Pb	0.04	15.000	RLB				
Ni	<0.01	15.000	RLB				
Ag	<0.01	0.250	RLB				

LAB NOTES

CERTIFIED BY [signature] DATE 4 / 11 / 88 TIME 7:30 AM

CHAIN OF CUSTODY

FROM [signature] TO [signature] DATE 3 / 29 / 88 TIME 9:45 AM

FROM ____ TO ____ DATE ___/___/___ TIME ____

FROM ____ TO ____ DATE ___/___/___ TIME ____

PRETREATMENT USE ONLY

BY ___/___ COMPUTER ___/___ FDB ___/___ FILE ___/___
INIT DATE INIT DATE INIT DATE INIT DATE

ZM: LABFORM.PRG

BI ANNUAL

Industrial Compliance Report

Reporting Period: June 15 to December 15, 1987.

Section A. Industry Information

Name of Industry: ASARCO Incorporated

Mailing Address : 495 East 51st Avenue

Denver, Colorado 80216

Person submitting report Larry G. Eagan

Section B. Analytical Results of Sampling Events (See Attachments)

Attach results of ALL sampling events for reporting period. Each attachment should contain the following information:

1. Sample Date SEE ATT
2. Sample Time
3. Sample Type:
   a. Grab
   b. Time Composite
   c. Flow Composite
4. Sampling Location

   (At a minimum, samples should be from ALL Monitoring Points identified in your Wastewater Contribution Permit.)
5. Results of ALL analysis performed on samples.

   (Minimum requirement to include all parameters

identified in the Permit under Self-monitoring requirements.)

6. ALL required flow data (measured or estimated):

   a. Average daily flow at Monitoring Point(s)

   b. Maximum daily flow at Monitoring Point(s)

Section C. Non-Discharge Wastes

If your firm disposed of any non domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information.

	Type of waste	Volume	Pick-up Date	Hauling Firm
1.	None			
2.				
3.				
4.				
5.				
6.				

Section D. Statement of Compliance or Noncompliance

Complete and sign statement 1 or 2.

1. Based on the information contained on this compliance report and my own personal knowledge, the business identified in Section A of this report is consistently meeting all federal and local pretreatment standards as set forth in the Wastewater Contribution Permit issued to this company.

Signature Larry G. Eagan X

Name (print) Larry G. Eagan

Title Manager Date 12-14-87

2. Based on the information contained on this compliance report and my own personal knowledge, the business identified in Section A of this report is not consistently meeting federal and local pretreatment standards as set forth in the Wastewater Contribution Permit issued to this company. Additional operations and maintenance, and/or adequate pretreatment to meet these requirements, will be implemented as soon as possible. A compliance schedule outlining the specific actions we will take is attached. This schedule represents the shortest reasonable time frame within which we can meet these requirements. I understand that this compliance schedule in no way releases my firm from further administrative and/or legal actions that may be taken by the City and County of Denver or other applicable State or Federal Agencies.

Signature _____

Name (print) _____

Title _____ Date _____

Section E. Total Toxic Organics Certification Statement

As an alternative to monitoring total toxic organics (TTO's) to determine compliance with the TTO standards that may be required for certain industries, some industries, with the approval of the City and County of Denver, may complete the following statement.

Based on my inquiry of the person or persons directly responsible for managing compliance the pretreatment standards for total toxic organics (TTO's), I certify that to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewater has occurred since filing of the last required compliance report. I further certify that this facility is implementing the Toxic Organic Management Plan most recently submitted to and approved by the City and County of Denver.

Signature Larry G Eagan

Name (print) Larry G. Eagan

Title Manager Date 12-14-87

Section F. Statement of Accuracy and Completeness

Based upon my inquiries of the persons submitting information contained in this report and my own personal beliefs, the information contained in this report is accurate and true and represents the typical discharge from this firm to the sanitary sewer system of the City and County of Denver.

Signature Larry G. Eagan

Name (print) Larry G. Eagan

Title Manager Date 12-14-87

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

REPORT NO. 8-87

ASARCO Incorporated
Globe Plant

Monitoring Point 001
Sample Date 8/26/87

Total Flow 39970 gallons

Flow Composite Sample Total Volume 2235 ml 7 samples/24 hr.

Total Metals (ppm)

Cadmium	(Cd)	0.020
Copper	(Cu)	0.010
Lead	(Pb)	0.060
Nickel	(Ni)	< 0.010
Zinc	(Zn)	0.220
pH		8.1

A flow rate was taken on 8/25/87, 21060 gallons were obtained over a 24 hour period with a maximum flow rate of 1.25 gal./sec. during that 24 hours and an average daily flow rate of 14.6 gal/min.

Duane Yantorno
DUANE YANTORNO
Environmentalist/Chemist

DY:md

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

REPORT NO. 9-87

ASARCO Incorporated
Globe Plant

Monitoring Point 001
Sample Date 9/22/87

Total Flow 16960 gallons

Flow Composite Sample Total Volume 6640 ml with 21 samples/24 hr.

Total Metals (ppm)

Cadmium	(Cd)	0.140
Copper	(Cu)	0.020
Lead	(Pb)	< 0.10
Nickel	(Ni)	0.020
Zinc	(Zn)	0.46
pH		7.4

A flow measurement was taken on 9/21/87, a total flow rate of 12760 gallons was obtained, there was no flow into the sewer from two of the buildings do to a water line brake . The maximum flow rate was 1.08 gal./sec. during that 24 hour period, and an average daily flow rate of 8.9 gal./min.

Duane Yantorno
DUANE YANTORNO
Environmentalist/Chemist

DY:md

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

REPORT NO. 10-87

ASARCO Incorporated
Globe Plant

Monitoring Point 001
Sample Date 10/21/87

Total Flow 30710 gallons

Flow Composite Sample Total Volume 12160 ml 38 samples/24 hr.

Total Metals (ppm)

Cadmium	(Cd)	0.020
Copper	(Cu)	< 0.010
Lead	(Pb)	0.30
Nickel	(Ni)	< 0.025
Zinc	(Zn)	0.27
pH		8.6

A flow measurement was taken on 10/20/87 over a 24 hour period and 10120 gallons were measured . Maximum flow rate of 2 gal/sec. and an average daily flow rate of 7.0 gal./min. Note: there was a water line brake , two buildings were without water. All flow measurements were taken with an ISCO 2870 Flow Meter.

Duane Yantorno
DUANE YANTORNO
Environmentalist/Chemist

DY:md

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

REPORT NO. 11-87

ASARCO Incorporated
Globe Plant

Monitoring Point 001
Sample Date 11/17/87

Total Flow 57640 gallons

Flow Composite Sample Total Volume 18250 ml 73 samples/24 hr.

Total Metals (ppm)

Cadmium	(Cd)	0.140
Copper	(Cu)	0.010
Lead	(Pb)	0.20
Nickel	(Ni)	< 0.025
Zinc	(Zn)	1.20
pH		8.4

Flow rate was taken on 11/18/87 a total flow rate of 41030 gallons was obtained with a maximum flow rate of 1.58 gal./sec. during that 24 sample period and an average daily flow of 28.5 gal./min.

Duane Yantorno
DUANE YANTORNO
Environmentalist/Chemist

DY:md

LAB ANALYSIS REQUEST

COMPANY: SARCO INCORPORATED

ADDRESS: 495 E 51ST AVE. DENVER 80216

ACCT NUM: 0540

MANAGER: LARRY G. EAGAN

PHONE: 296-6381

PRETREAT. REP.: HARRISON

SAMPLE NUMBER: 87-09-30-03

SAMPLE REQUESTED: 09-28-87 FDB

SAMPLE DATE: 9-30-87

SAMPLE TYPE: 24 hr flow comp.

DESCRIPTION OF BUSINESS
CLASS: SIGNIFICANT USER
CADMIUM METAL REFINERY

LAB ANALYSIS NOTES OCT 6 '87 FDB

SPECIAL HANDLING REQUIRED:

SAMPLE PRESERVED WITH: CN⁻ — NaOH
Metals - HNO_3

ANALYSIS REQ'D	MG/L	LIMITS	BY	ANALYSIS REQ'D	MG/L	LIMITS	BY
pH	7.60	6 TO 9	DMH	Zn	0.13	12.000	DJP
Cd	0.01	1.200	DJP	CN-	0.08	2.000	DMH
Cr	0.02	7.500	DJP				
Cu	0.40	4.500	DJP				
Pb	0.11	15.000	DJP				
Ni	0.83	15.000	DJP				
Ag	<0.01	0.250	DJP				

LAB NOTES

CERTIFIED BY Layne J. Paulsen DATE 10/2/87 TIME 2:00 PM

CHAIN OF CUSTODY

FROM A. Rodriguez TO Ray Brewer DATE 9/30/87 TIME 12:10 pm

FROM ____ TO ____ DATE ___/___/___ TIME ____

FROM ____ TO ____ DATE ___/___/___ TIME ____

PRETREATMENT USE ONLY

BY ___/___ (INIT DATE) COMPUTER ___/___ (INIT DATE) FDB ___/___ (INIT DATE) FILE ___/___ (INIT DATE)

REV. 1 SEPTEMBER 1985

LAB ANALYSIS REQUEST

COMPANY: SARCO INCORPORATED
ADDRESS: 495 E 51ST AVE.
ACCT NUM: 0540

MANAGER: HARRY G. EAGAN
PHONE: 296-6381
PRETREAT. REP.: HARRISON

SAMPLE NUMBER: 87-07-01-04
AUG 4 '87
SAMPLE REQUESTED: 06·29·87
SAMPLE DATE:
SAMPLE TYPE: 24 hr flow composite

DESCRIPTION OF BUSINESS
CLASS: SIGNIFICANT USER
CADMIUM METAL REFINERY

LAB ANALYSIS NOTES

SPECIAL HANDLING REQUIRED:

SAMPLE PRESERVED WITH:

ANALYSIS REQ'D	MG/L	LIMITS	BY	ANALYSIS REQ'D	MG/L	LIMITS	BY
pH	8.76	6 TO 9	RLB	Zn	0.74	12.000	LMH
Cd	0.12	1.200	LMH	CN-	0.40	2.000	LMH
Cr	0.05	7.500	LMH				
Cu	0.09	4.500	LMH				
Pb	0.80	15.000	LMH				
Ni	0.34	15.000	LMH				
Ag	0.06	0.250	LMH				

LAB NOTES

CERTIFIED BY Wayne S. Parker DATE 7/28/87 TIME 2:30PM

CHAIN OF CUSTODY

FROM [illegible] TO Ray Brewer DATE 7/1/87 TIME 11:35 Am.

FROM ____ TO ____ DATE ___/___/___ TIME ____

FROM ____ TO ____ DATE ___/___/___ TIME ____

FROM ____ TO ____ DATE ___/___/___ TIME ____

W LAFORM.FRS

SAMPLING REQUEST

COMPANY	ADDRESS	ACCT NO
ASARCO INCORPORATED	495 S 51ST AVE.	0540

MANAGER	PHONE	PRETREAT REP.
LARRY S. EAGAN	296-6381	HARRISON

DESCRIPTION OF BUSINESS
CLASS:SIGNIFICANT USER
CADMIUM METAL REFINERY

SAMPLING LOCATION
CONTROL MANHOLE INSTALLED LOCATED EAST 200FT FROM OFFICE.

CAUTION: DISCHARGE WASTES FROM THIS INDUSTRY MAY CONTAIN HAZARDOUS OR TOXIC SUBSTANCES. APPROPRIATE SAFETY PRECAUTIONS SHOULD BE OBSERVED WHILE GATHERING AND HANDLING THESE WASTES.

DATE REQUESTED: 06/29/87 SAMPLE TYPE REQUIRED 24 hr flow composite

SPECIAL HANDLING REQUIRED: _____

DATE SAMPLED: 6-30, 7-1-87

SAMPLING / FLOW MONITORING CREW Lawrence Chittom E

TIME SAMPLE STARTED 7:00 am TIME SAMPLE COMPLETED 7:00 am

SAMPLE VOLUME 3968 ML.

30 MINUTE PEAK FLOW 41.5 GPM. TOTAL 24 HOUR FLOW 35896 GAL.

SAMPLE SPLIT WITH ASARCO INC.

SAMPLE PRESERVED WITH HNO_3, NaOH

FIELD NOTES:

DELIVERED TO May TIME 11:45 DATE 7/1/87

REQUESTED BY FDB THRU HAS NG 6/24/87 TO CWH C.W.H. JUL 7 1987

FORM: SAMPFORM.PRG JUL 13 '87 FDB

ASARCO

004996

1987 JUL -2 AM 11:56

GLOBE PLANT

June 29, 1987
File: 7.4.4.12

Mr. Y. E. Harrison
City and County of Denver
Wastewater Management Division
3840 G York Street
Denver, CO 80205

INDUSTRIAL COMPLIANCE REPORT

Attached please find the Industrial Compliance Report for June, 1987, along with the Industrial Compliance Analytical Analysis of Plant Discharge dated June 26, 1987.

If you have any questions, please feel free to contact me.

Sincerely,

Larry G. Eagan

LARRY G. EAGAN
Manager

LGE:md
Attachment

Industrial Compliance Report

Reporting Period: _____ to JUNE, 1987.

Section A. Industry Information

Name of Industry: ASARCO Incorporated

Mailing Address : 495 East 51st Avenue

Denver, Colorado 80216

Person submitting report LARRY G. EAGAN

Section B. Analytical Results of Sampling Events

Attach results of all sampling events for reporting period. Each attachment should contain the following information: Location at which sample was taken, period of time over which sample was taken, person or company obtaining the sample, type of sample obtained (flow composited, time composited, grab), results of lab analysis done on sample, measured or estimated average and maximum daily flows at monitoring point.

Section C. Non-Discharge Wastes

If your firm disposed of any non domestic wastes (process wastes, waste chemicals, spent baths, sludges, etc.) by having them hauled off site, complete the following information.

	Type of waste	Volume	Pick-up Date	Hauling Firm
1.	Solvent	15 gal	6-3-87	Oil & Solvent Process Co.
2.				
3.				

4. _____ _____ _____ _____

5. _____ _____ _____ _____

6. _____ _____ _____ _____

Section D. Statement of Compliance or Noncompliance

Complete and sign statement 1 or 2.

1. Based on the information contained on this compliance report and my own personal knowledge, the business identified in Section A of this report is consistently meeting all federal and local pretreatment standards as set forth in the Wastewater Contribution Permit issued to this company.

Signature Larry G. Eagan

Name (print) LARRY G. EAGAN

Title Manager Date June 30, 1987

2. Based on the information contained on this compliance report and my own personal knowledge, the business identified in Section A of this report is not consistently meeting federal and local pretreatment standards as set forth in the Wastewater Contribution Permit issued to this company. Additional operations and maintenance, and/or adequate pretreatment to meet these requirements, will be implemented as soon as possible. A compliance schedule outlining the specific actions we will take is attached. This schedule represents the shortest reasonable time frame within which we can meet these requirements. I understand that this compliance schedule in no way releases my firm from further administrative and/or legal actions that may be taken by the City and County of Denver or other applicable State or Federal Agencies.

Signature _____

Name (print) _____

Title _____ Date _____

Section E. Total Toxic Organics Certification Statement

As an alternative to monitoring total toxic organics (TTO's) to determine compliance with the TTO standards that may be required for certain industries, some

industries, with the approval of the City and County of Denver, may complete the following statement.

Based on my inquiry of the person or persons directly responsible for managing compliance the pretreatment standards for total toxic organics (TTO's), I certify that to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewater has occurred since filing of the last required compliance report. I further certify that this facility is implementing the Toxic Organic Management Plan most recently submitted to and approved by the City and County of Denver.

Signature N/A

Name (print) _____

Title _____ Date _____

Section F. Statement of Accuracy and Completeness

Based upon my inquiries of the persons submitting information contained in this report and my own personal beliefs, the information contained in this report is accurate and true and represents the typical discharge from this firm to the sanitary sewer system of the City and County of Denver.

Signature Larry G. Eagan

Name (print) LARRY G. EAGAN

Title Plant Manager Date 6-30-87

INDUSTRIAL COMPLIANCE
ANALYTICAL ANALYSIS OF PLANT DISCHARGE

Asarco Globe Plant Laboratory - June 26, 1987

Date sample started -- 6-24-87 Time started -- 1442
Date sample ended 6-25-87 Time ended 1359
Total Time Ran --- 23 hrs. 17 min.

Location: 001 Manhole
Flow composited sample
Maximum daily flow --1.96 gallons/second
Total Flow -- 56,370

Analysis: -- in (ppm)

	TOTAL	ALLOWABLE MAXIMUM (ppm)
Cadmium	0.72	1.2
Chromium	<0.025	7.5
Copper	<0.010	4.5
Lead	0.090	15.0
Nickel	0.010	15.0
Zinc	0.95	12.0
Silver	<0.010	0.25
Cyanide	0.004	2.0
pH Units	7.4	6.0-9.0

ASARCO

October 25, 1999

Mr. James T. Graber
Industrial Waste Specialist
Metro Wastewater Reclamation District
6450 York Street
Denver, Colorado 80229-7499

Dear Mr. Graber:

Enclosed for your review is the Asarco Globe Plant's Periodic Compliance Report (PCR) for the period of July – September 1999. The PCR contains flow-monitoring data, including discharge logs, sampling results and waste disposal activities.

During the period there were several monitoring events at 001 and 002. Of these events, all but two are included in this report. The monitoring events performed by Asarco on July 22-23 and August 11-12 were previously submitted with the October 8, 1999 letter regarding Asarco's analytical procedures.

Based on my inquiry of the people responsible for these areas or gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate and complete. If you should require additional information or have any questions regarding this submittal, please contact Nikki Mathis at 303-296-5111.

Sincerely,

Margaret W. Staub
Unit Manager

enc.

cc: (w/ enc.)
R. Little
R. Marcus
C. Dungey
P. Dowell/D. Lux
N. Mathis

F:\USERS\NIKKI\POTW\PCRCVLTR.DOC
FILE NO: 4.6.5.2

ASARCO Incorporated, 495 East 51st Avenue, Denver, Colorado 80216-2098
Phone (303) 296-5900 • Fax. (303) 296-0508

PERIODIC COMPLIANCE REPORT

Reporting period: Third Quarter 1999

Date prepared: October 25, 1999

Prepared by: Patricia Dowell and Nicole Mathis

A. FACILITY INFORMATION

Name: ASARCO Globe Plant

Location: 495 E. 51st Avenue
Denver, Colorado 80216

Phone: (303) 296-5900 Fax: (303)296-0508 Emergency: (303) 514-2229

B. FLOW MONITORING

(Discharge log is attached.)

Monitoring Point 001 [ ] No discharge

Average daily flow volume 26,761 [X] Measured [ ]Estimated
(gallons per day – includes zero discharge days)

Maximum daily flow volume 88,508 [X] Measured [ ]Estimated
(gallons per day)

(Process waste batch discharge log is attached.)

Monitoring Point 002 [ ] No discharge

Average daily flow volume 341 [ ] Measured [X]Estimated
(gallons per day – does not include zero discharge days)

Maximum daily flow volume 700 [ ] Measured [X]Estimated
(gallons per day)

C. SAMPLING RESULTS

(Results are attached.)

Attach copies of the analytical results of all samplings of the regulated wastestreams performed by the permittee during the reporting period. Attach copies of the analytical results of all split samplings of the regulated wastestream performed by the permittee or other agency during the reporting period. Results transmitted to the permittee by any other agency, including the Metro District, do

not have to be submitted, but must be kept on file for at least 3 years and be available for inspection.

Analytical results submitted with this PCR must contain the following information:

1. Concentrations and measurements of all parameters for which there are self-monitoring requirements.

2. The date, time and location of all sampling activities. Include the start-stop dates and times for composite samples.

3. The method of sampling (grab, time composite, flow composite, or continuous measurement) and name of the person collecting the sample.

4. The name of the laboratory (or person) that performed the analyses.

5. The date the analyses were performed.

6. The analytical techniques/methods used for the analyses.

D. WASTE DISPOSAL

[ ] No waste disposal activity occurred during the reporting period

[x] Summary provided below

Waste Name	Volume	Ship Date	Disposal Company
Process Debris	20 c.y.	07/27/99	Safety-Kleen
Non-Haz WWTP Sludge	72 c.y.	08/16/99	Asarco (to FNP)
Process Debris	20 c.y.	08/19/99	Safety-Kleen

F. ACCURACY AND COMPLETENESS CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. I further certify that there are no significant and/or regulated industrial process operations being conducted at this facility which discharge water to the POTW and which are not covered by this report. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and

complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Authorized Representative

10/25/99
Date

Margaret W. Staub
Name (please print or type)

Unit Manager
Title (please print or type)

001 Volumes

Third Quarter 1999

Date/Time	Totalized Flow (gal)
7/1/99	27088.0
7/2/99	21106.7
7/3/99	65.8
7/4/99	161.5
7/5/99	0.3
7/6/99	26835.3
7/7/99	40536.6
7/8/99	41800.1
7/9/99	40753.4
7/10/99	0.0
7/11/99	0.0
7/12/99	58603.6
7/13/99	58682.6
7/14/99	53411.9
7/15/99	56487.7
7/16/99	42098.0
7/17/99	0.0
7/18/99	0.0
7/19/99	53513.4
7/20/99	54935.9
7/21/99	14518.0
7/22/99	40198.3
7/23/99	18186.1
7/24/99	0.0
7/25/99	0.0
7/26/99	0.7
7/27/99	0.0
7/28/99	28466.7
7/29/99	0.0
7/30/99	0.0
7/31/99	0.0
8/1/99	0.0
8/2/99	26766.0
8/3/99	31865.2
8/4/99	34649.1
8/5/99	33045.8
8/6/99	0.0
8/7/99	0.0
8/8/99	0.0
8/9/99	60157.2
8/10/99	71046.1
8/11/99	88508.3
8/12/99	53173.4
8/13/99	63785.4
8/14/99	7.7
8/15/99	0.0
8/16/99	55234.1
8/17/99	45600.6
8/18/99	34399.7
8/19/99	45416.1
8/20/99	55427.3
8/21/99	0.0
8/22/99	0.0
8/23/99	48137.0
8/24/99	48877.8
8/25/99	46854.5
8/26/99	33282.2
8/27/99	0.0
8/28/99	0.0
8/29/99	0.0
8/30/99	50624.9
8/31/99	53427.6

Date/Time	Totalized Flow (gal)
9/1/99	28278.9
9/2/99	0.0
9/3/99	36520.9
9/4/99	0.0
9/5/99	0.0
9/6/99	0.0
9/7/99	13949.7
9/8/99	30132.7
9/9/99	13495.4
9/10/99	49766.0
9/11/99	40655.3
9/12/99	0.0
9/13/99	58453.6
9/14/99	19315.1
9/15/99	52972.3
9/16/99	41743.9
9/17/99	48804.6
9/18/99	0.0
9/19/99	159.2
9/20/99	40632.1
9/21/99	33801.6
9/22/99	27231.8
9/23/99	45060.0
9/24/99	23980.2
9/25/99	0.0
9/26/99	0.0
9/27/99	43652.4
9/28/99	71438.0
9/29/99	43127.4
9/30/99	41101.2

THIRD QUARTER 1999

Process Waste Batch Discharge Log
and
Intent to Discharge Notification Log

Process Wastewater Source	Volume (gal)	Date of Discharge	Start Time	Estimated Duration of Discharge and End Time	Prior Testing Results?	Self-Monitoring Required?	Date, Time and Individual Notified at Metro	Individual Notifying Metro and Additional Comments
Antimony Shot Electrolytic Antimony	250 50	7/7/99 (@ MP001)	8:30	10 hours; 18:30	No	Yes; self-mon. req. @ 001 for Sb during discharge. Results due w/ 10/99 PCR	7/6/99; 8:03; T. Pfeifer	N. Mathis; Sample will be analyzed for all permitted parameters to also satisfy monthly monitoring rqmnts.
Cadmium Sulfide Batch 7	350	7/12/99 (@ MP002)	10:30	10-30 minutes; 11:00	Yes	Yes; self-mon. req to be submitted w/ 10/99 PCR.	7/9/99; 10:10; T. Graber	N. Mathis; Lot #s B-8-99 and B-9-99
Antimony Pickling Electrolytic Antimony	150 150	7/13/99 (@ MP001)	8:30	10 hours; 18:30	No	No	7/12/99; 10:34; Left msg. For T. Graber	N. Mathis
Antimony Pickling	150	7/22/99 (@ MP001)	8:30	10 hours; 18:30	No	No	7/21/99; 8:07; Left msg. For T. Graber	N. Mathis Monitored at 001
Electrolytic Antimony	150	8/03/99 (@ MP001)	8:30	12 hours; 20:30	No	No	8/02/99; 9:16; Left msg. For T. Graber	N. Mathis
Electrolytic Antimony	50	8/11/99 (@ MP001)	8:30	12 hours; 20:30	No	No	8/10/99; 13:23; T. Pfeifer	N. Mathis Monitored at 001

Antimony Pickling	300							
Antimony Shot	400	8/19/99 (@ MP001)	8:30	12 hours; 20:30	No	No	8/18/99; 8:30; T. Graber	N. Mathis
Cadmium Sulfide Batch 8	300	8/20/99 (@ MP002)	8:30	10-30 minutes; 9:00	No	No	8/19/99; 10:10; T. Graber	N. Mathis
Cadmium Sulfide Batch 9	300	8/23/99 (@ MP002)	8:30	10-30 minutes; 9:00	No	No	8/19/99; 14:43; T. Graber	N. Mathis
Cadmium Sulfide Batch 10	350	8/24/99 (@ MP002)	10:30	10-30 minutes; 11:00	No	No	8/23/99; 10:24; T. Pfeifer	S. Mace
Antimony Shot Electrolytic Antimony	200 100	8/25/99 (@ MP001)	8:30	8 hours; 16:30	No	No	8/23/99;14:15; Left message for T. Pfeiffer	R. Flynn; Total flow expected to be ~50,000 gallons.
Cadmium Sulfide Batch 11	350	8/26/99 (@ MP002)	8:30	10-30 minutes; 9:00	No	No	8/24/99; 15:30; T. Graber	S. Mace
Interceptor Trench		8/31/99 (@ MP001)			No	No	8/26/99; 8:40; T. Graber 8/30/99; 9:40; T. Graber	R. Flynn - Plan to begin pumping from IT 8/27/99 at a rate not greater than 2 gpm. N. Mathis - Revised startup date – 8/31/99.
Cadmium Sulfide Batch 12	350	8/26/99 (@ MP002)	12:30	10-30 minutes; 11:00	No	No	8/19/99; 11:05; T. Graber	R. Flynn
Cadmium Sulfide Batch 13	350	8/31/99 (@ MP002)	8:30	10-30 minutes; 9:00	No	No	8/27/99; 15:30; T. Graber	N. Mathis
Antimony Pickling	300	9/1/99 (@ MP001)	8:30	8 hours; 16:30	No	No	8/31/99; 9:40; Notified T. Graber verbally at mtg.	N. Mathis; Total flow expected to be ~30,000 gallons.
Cadmium Sulfide Batch 14	350	9/3/99 (@ MP002)	8:30	10-30 minutes; 9:00	No	No	9/2/99; 9:45; T. Graber	N. Mathis

Cadmium Sulfide Batch 15	280	9/7/99 (@ MP002)	8:30	10-30 minutes; 9:00	No	No	9/3/99; 10:05; T. Graber	N. Mathis
Electrolytic Antimony	150	9/15/99 (@ MP001)	8:30	8 hours; 16:30	No	No	9/14/99; 15:00; Left message for T. Graber	N. Mathis
Cadmium Sulfide Batch 16	425	9/22/99 (@ MP002)	8:30	10-30 minutes; 9:00	No	No	9/21/99; 8:25; T. Graber	N. Mathis
Antimony Shot Antimony Pickling	150 200	9/22/99 (@ MP001)	9:00	8 hours; 17:00	No	No	9/21/99; 15:13; T. Graber	N. Mathis
Antimony Pickling Electrolytic Antimony	300 50	9/29/99 (@ MP001)	9:00	8 hours; 17:00	No	No	9/28/99; 9:49; T. Graber	N. Mathis

ASARCO INCORPORATED
Environmental Laboratory

CHAIN OF CUSTODY RECORD

495 E. 51ST AVENUE
DENVER, CO 80216

PROJ. NO.

PROJECT NAME: July & Sb Process

SAMPLERS: (Signature) Patricia Dowell

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 liter unfilt/unpreserved	250 mls unfilt/unpreserved						REMARKS
001	7/7/99 7/8/99	8:07 8:10	X		001	1	X							
001	7/7/99	11:27		X	001	1		X						

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Patricia Dowell	7/7/99 11:32 7/8/99 8:15	Patricia Dowell Patricia Dowell			
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks	

Distribution: Original Accompanies Shipment; First Copy to Coordinator Field Files; Second Copy to Representative of Inspected Facility

Split Samples: ☐ Accepted ☐ Declined _____ Signature

AG-000806

ASARCO INC.
GLOBE PLANT

SANITARY SEWER MONITORING DATA
Monitoring Point 001

FLOW COMPOSITE SAMPLING DATA:

Flow composite sample is collected using an ISCO 3710 sampler, and an ISCO 4220 Flow Meter.

Sampling Period:	7/7/1999 8:07 to 7/8/1999 8:07	
Total Flow for 24 hour period:	40.531	gal
Maximum Flow:	1.31	gal/sec
Average Flow:	0.47	gal/sec
Number of Samples Collected:	40	
Total Volume Collected:	4.0	liters

Total Metals Composite Analysis:

Antimony (Sb):	0.38	(ppm)
Arsenic (As):	0.0236	(ppm)
Cadmium (Cd):	0.02	(ppm)
Copper (Cu):	0.03	(ppm)
Lead (Pb):	0.02	(ppm)
Nickel (Ni):	0.01	(ppm)
Selenium (Se):	0.143	(ppm)
Zinc (Zn):	0.02	(ppm)

Sampled By: Patricia Dowell

Analyzed By: Patricia Dowell

GRAB SAMPLING DATA:

Grab sample is collected, and pH is measured within 15 minutes of sample time using an Orion Model 301 pH meter. Meter is calibrated and maintained in accordance with manufacturers' specifications. Meter is calibrated immediately prior to each use.

Sampling Date/Time: 7/7/1999 11:27

Analysis Date/Time: 7/7/1999 11:33

pH Grab Analysis:

pH 9.8 (units)

Sampled By: Patricia Dowell

Analyzed By: Patricia Dowell

07JUL99 08:00 002.848175 MGAL

SITE 1 USER EQUATION

8:00 11:36

07JUL99 12:00 002.851013 MGAL

0.00 — GPM 80.0

FLOW

07JUL99 16:00 002.869464 MGAL

SITE 1 USER EQUATION

07JUL99 20:00 002.887512 MGAL

0.00 — GPM 80.0

FLOW

08JUL99 00:00 002.888706 MGAL

REPORT A SITE 1 4220 Flow Meter
INTERVAL: 07JUL99 00:00 TO 08JUL99 00:00
TOTAL VOLUME 002.888706 MGAL
INTERVAL VOLUME 000.040531 MGAL
FLOW RATE:

Ave	28.14 GPM	
Max	77.53 GPM	07JUL99 14:36
Min	0.000 GPM	07JUL99 00:01

SAMPLE HISTORY
07JUL99 11:36 BOTTLE 00

ASARCO Incorporated
Quality Assurance Report Form

Lab ID Number	208-023-99	Well Number	001
Category	SEWER	Location	
Description	JULY COMP & SB PROCESS	Parameter	TOTAL
QAQC Type	SAMPLE	Date Sampled	07/07/1999

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
Ph	SAMPLE	9.80	EPA150.1	07/07/1999	PD

ASARCO Incorporated
Quality Assurance Report Form

Lab ID Number	208-025-99	Well Number	001
Category	SEWER	Location	
Description	JULY COMP & SB	Parameter	TOTAL
QAQC Type	SAMPLE	Date Sampled	07/07/1999

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
As	SAMPLE	0.0235	3114 B 4.d	07/12/1999	PD
Cd	SAMPLE	0.02	3111 B	07/12/1999	PD
Cu	SAMPLE	0.03	3111 B	07/12/1999	PD
Ni	SAMPLE	0.01	3111 B	07/12/1999	PD
Pb	SAMPLE	0.02	3111 B	07/12/1999	PD
Sb	SAMPLE	0.39	3111 B	07/12/1999	PD
Se	SAMPLE	0.142	3114 B	07/12/1999	PD
Zn	SAMPLE	0.02	3111 B	07/12/1999	PD

ASARCO Incorporated
Quality Assurance Report Form
Analytical Duplicate

Lab ID Number 200-083-99
Category QAQC
Description JULY COMP &SB
QAQC Type DUPLICATE
QAQC for LabID 208-025-99

Well Number 001
Location
Parameter TOTAL
Date Sampled 07/07/1999

Analyte	Qaqc Type	Analysis	Original Sample Analysis	Percent RPD	Method Used	Date Analyzed	Analyst
As	DUPLICATE	0.0236	0.0235	0.4	3114 B 4.d	07/12/1999	PD
Cd	DUPLICATE	0.02	0.02	0.0	3111 B	07/12/1999	PD
Cu	DUPLICATE	0.03	0.03	0.0	3111 B	07/12/1999	PD
Ni	DUPLICATE	<0.01	0.01	0.0	3111 B	07/12/1999	PD
Pb	DUPLICATE	0.02	0.02	0.0	3111 B	07/12/1999	PD
Sb	DUPLICATE	0.36	0.39	8.0	3111 B	07/12/1999	PD
Se	DUPLICATE	0.144	0.142	1.3	3114 B	07/12/1999	PD
Zn	DUPLICATE	0.01	0.02	66.6	3111 B	07/12/1999	PD

ASARCO Incorporated
Quality Assurance Report Form
Analytical Spike

Lab ID Number	200-084-99	Well Number	001
Category	QAQC	Location	
Description	JULY COMP & SB	Parameter	TOTAL
QAQC Type	SPIKE	Date Sampled	07/07/1999
QAQC for LabID	208-025-99		

Analyte	Qaqc Type	Analysis	Original Value	Spike Added	Spike Recovery	Method Used	Date Analyzed	Analyst
As	SPIKE	0.0291	0.0235	0.005	112.0	3114 B 4.d	07/12/1999	PD
Cd	SPIKE	0.42	0.02	0.400	100.0	3111 B	07/12/1999	PD
Cu	SPIKE	0.42	0.03	0.400	97.5	3111 B	07/12/1999	PD
Ni	SPIKE	0.40	0.01	0.400	97.5	3111 B	07/12/1999	PD
Pb	SPIKE	0.43	0.02	0.430	95.3	3111 B	07/12/1999	PD
Sb	SPIKE	0.86	0.39	0.400	117.5	3111 B	07/12/1999	PD
Se	SPIKE	0.162	0.142	0.020	100.0	3114 B	07/12/1999	PD
Zn	SPIKE	0.39	0.02	0.400	92.5	3111 B	07/12/1999	PD

ASARCO Incorporated
Quality Assurance Report Form
Method Blank

Lab ID Number	200-075-99	Well Number	
Category	QAQC	Location	
Description	METHOD BLANK	Parameter	TOTAL
QAQC Type	BLANK	Date Sampled	07/12/1999
QAQC for LabID	208-02[illegible]-99		

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
As	BLANK	<0.0005	3114 B 4.d	07/12/1999	PD
Cd	BLANK	<0.01	3111 B	07/12/1999	PD
Cu	BLANK	<0.01	3111 B	07/12/1999	PD
Ni	BLANK	<0.01	3111 B	07/12/1999	PD
Pb	BLANK	0.01	3111 B	07/12/1999	PD
Sb	BLANK	<0.02	3111 B	07/12/1999	PD
Se	BLANK	<0.0005	3114 B	07/12/1999	PD
Zn	BLANK	<0.01	3111 B	07/12/1999	PD

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number 200-076-99
Category QAQC
Description ICV
QAQC Type STANDARD
QAQC for LabID 208-025-99

Well Number
Location
Parameter TOTAL
Date Sampled 07/12/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0020	0.0020	100.0	3114 B 4.d	07/12/1999	PD
Cd	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD
Cu	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD
Ni	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD
Pb	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD
Sb	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD
Se	STANDARD	0.0020	0.0020	100.0	3114 B	07/12/1999	PD
Zn	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD

Lab ID Number 200-077-99
Category QAQC
Description CCV
QAQC Type STANDARD
QAQC for LabID 208-025-99

Well Number
Location
Parameter TOTAL
Date Sampled 07/12/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0020	0.0020	100.0	3114 B 4.d	07/12/1999	PD
Cd	STANDARD	1.02	1.0000	102.0	3111 B	07/12/1999	PD
Cu	STANDARD	1.02	1.0000	102.0	3111 B	07/12/1999	PD
Ni	STANDARD	0.98	1.0000	98.0	3111 B	07/12/1999	PD
Pb	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD
Sb	STANDARD	0.99	1.0000	99.0	3111 B	07/12/1999	PD
Se	STANDARD	0.0019	0.0020	95.0	3114 B	07/12/1999	PD
Zn	STANDARD	1.05	1.0000	105.0	3111 B	07/12/1999	PD

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number	200-078-99	Well Number	
Category	QAQC	Location	
Description	ICV	Parameter	TOTAL
QAQC Type	STANDARD	Date Sampled	07/12/1999
QAQC for LabID	208-025-99		

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0050	0.0050	100.0	3114 B 4.d	07/12/1999	PD
Cd	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD
Cu	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD
Ni	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD
Pb	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD
Sb	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD
Se	STANDARD	0.0050	0.0050	100.0	3114 B	07/12/1999	PD
Zn	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD

Lab ID Number	200-079-99	Well Number	
Category	QAQC	Location	
Description	CCV	Parameter	TOTAL
QAQC Type	STANDARD	Date Sampled	07/12/1999
QAQC for LabID	208-025-99		

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0047	0.0050	94.0	3114 B 4.d	07/12/1999	PD
Cd	STANDARD	5.01	5.0000	100.2	3111 B	07/12/1999	PD
Cu	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD
Ni	STANDARD	5.02	5.0000	100.4	3111 B	07/12/1999	PD
Pb	STANDARD	5.02	5.0000	100.4	3111 B	07/12/1999	PD
Sb	STANDARD	5.08	5.0000	101.6	3111 B	07/12/1999	PD
Se	STANDARD	0.0048	0.0050	96.0	3114 B	07/12/1999	PD
Zn	STANDARD	4.98	5.0000	99.6	3111 B	07/12/1999	PD

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number	200-080-99	Well Number	
Category	QAQC	Location	
Description	REFERENCE	Parameter	TOTAL
QAQC Type	STANDARD	Date Sampled	07/12/1999
QAQC for LabID	208-025-99		

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.124	0.1330	93.2	3114 B 4.d	07/12/1999	PD
Cd	STANDARD	0.092	0.0920	100.0	3111 B	07/12/1999	PD
Cu	STANDARD	0.114	0.1130	100.8	3111 B	07/12/1999	PD
Ni	STANDARD	0.321	0.3890	82.5	3111 B	07/12/1999	PD
Pb	STANDARD	0.184	0.1890	97.3	3111 B	07/12/1999	PD
Sb	STANDARD	0.094	0.0990	94.9	3111 B	07/12/1999	PD
Se	STANDARD	0.128	0.1220	104.9	3114 B	07/12/1999	PD
Zn	STANDARD	0.615	0.6110	100.6	3111 B	07/12/1999	PD

ASARCO INCORPORATED
Environmental Laboratory

CHAIN OF CUSTODY RECORD

495 E. 51ST AVENUE
DENVER, CO 80216

PROJ. NO.

PROJECT NAME: Sept Comp.

SAMPLERS: (Signature) Patricia Dowell

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1ml HNO3 unfilt	250ml unfilt unpreserved						REMARKS
001	9/21/99 9/22/99	9:40am 11:40am	X		Pump House	1	X							
001	9/21/99	1:40		X	Pump House	1		X						

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Patricia Dowell	9/21/99 1:45	Patricia Dowell			
Patricia Dowell	9/22/99 10:15	Patricia Dowell			

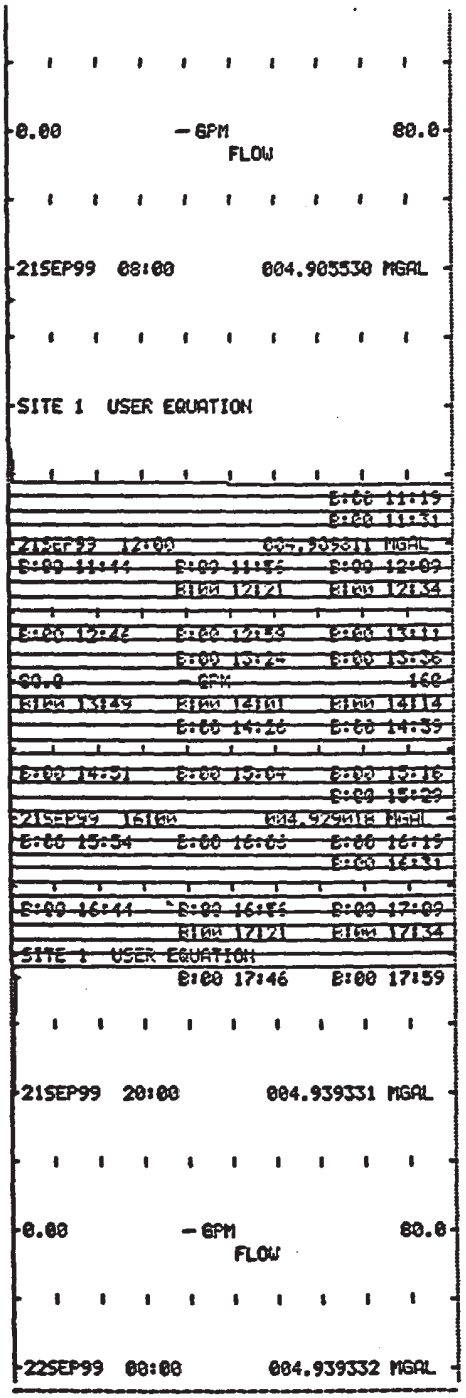
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks

Distribution: Original Accompanies Shipment; First Copy to Coordinator Field Files; Second Copy to Representative of Impacted Facility

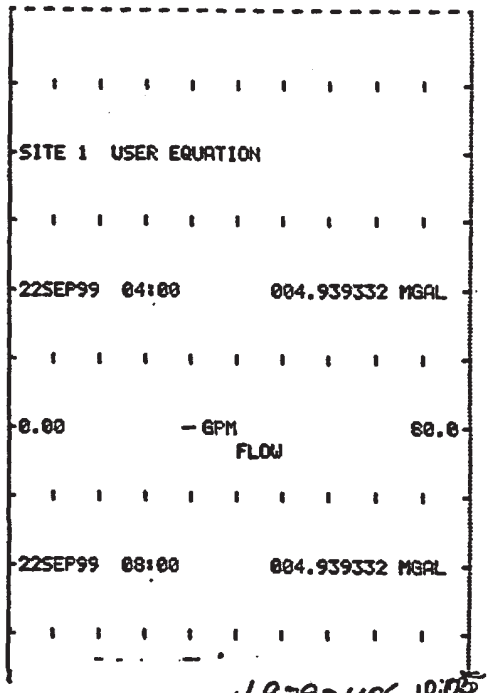
Split Samples: ☐ Accepted ☐ Declined _____ Signature

AG- 000257



REPORT A SITE 1 4220 Flow Meter
INTERVAL: 21SEP99 00:00 TO 22SEP99 00:00
TOTAL VOLUME 004.939332 MGAL
INTERVAL VOLUME 000.033802 MGAL
FLOW RATE:
Ave 23.47 GPM
Max 80.02 GPM 21SEP99 11:10

HISTORY starting 21SEP99 00:00



4.939348 10:00

ASARCO INC.
GLOBE PLANT

SANITARY SEWER MONITORING DATA
Monitoring Point 001

FLOW COMPOSITE SAMPLING DATA:

Flow composite sample is collected using an ISCO 3710 sampler, and an ISCO 4220 Flow Meter.

Sampling Period:	9/21/1999 9:40 to 9/22/1999 9:41	
Total Flow for 24 hour period:	33,816	gal
Maximum Flow:	1.33	gal/sec
Average Flow:	0.39	gal/sec
Number of Samples Collected:	33	
Total Volume Collected:	3.3	liters

Total Metals Composite Analysis:

Antimony (Sb):	0.30	(ppm)
Arsenic (As):	0.021	(ppm)
Cadmium (Cd):	0.02	(ppm)
Copper (Cu):	0.02	(ppm)
Lead (Pb):	0.04	(ppm)
Nickel (Ni):	0.01	(ppm)
Selenium (Se):	0.078	(ppm)
Zinc (Zn):	0.05	(ppm)

Sampled By: Patricia Dowell

Analyzed By: Patricia Dowell

GRAB SAMPLING DATA:

Grab sample is collected, and pH is measured within 15 minutes of sample time using an Orion Model 301 pH meter. Meter is calibrated and maintained in accordance with manufacturers' specifications. Meter is calibrated immediately prior to each use.

Sampling Date/Time: 9/21/1999 1:40 pm

Analysis Date/Time: 9/21/1999 1:45 pm

pH Grab Analysis:

pH 10.4 (units)

Sampled By: Patricia Dowell

Analyzed By: Patricia Dowell

ASARCO Incorporated
Quality Assurance Report Form

Lab ID Number	208-034-99	Well Number	001
Category	SEWER	Location	
Description	SEPTEMBER COMPOSITE 99	Parameter	TOTAL
QAQC Type	SAMPLE	Date Sampled	09/21/1999

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
As	SAMPLE	0.022	3114 B 4.d	10/13/1999	PD
Cd	SAMPLE	0.02	3111 B	10/13/1999	PD
Cu	SAMPLE	0.03	3111 B	10/13/1999	PD
Ni	SAMPLE	0.01	3111 B	10/13/1999	PD
Pb	SAMPLE	0.03	3111 B	10/13/1999	PD
Sb	SAMPLE	0.27	3111 B	10/13/1999	PD
Se	SAMPLE	0.075	3114 B	10/13/1999	PD
Zn	SAMPLE	0.05	3111 B	10/13/1999	PD

Lab ID Number	208-036-99	Well Number	001
Category	SEWER	Location	
Description	SEPTEMBER COMPOSITE 99	Parameter	TOTAL
QAQC Type	SAMPLE	Date Sampled	09/21/1999

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
Ph	SAMPLE	10.40	EPA150.1	09/21/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Analytical Duplicate

Lab ID Number	200-120-99	Well Number	001
Category	QAQC	Location	
Description	SEPTEMBER COMPOSITE 99	Parameter	TOTAL
QAQC Type	DUPLICATE	Date Sampled	09/21/1999
QAQC for LabID	208-034-99		

Analyte	Qaqc Type	Analysis	Original Sample Analysis	Percent RPD	Method Used	Date Analyzed	Analys
As	DUPLICATE	0.020	0.022	9.5	3114 B 4.d	10/13/1999	PD
Cd	DUPLICATE	0.01	0.02	66.6	3111 B	10/13/1999	PD
Cu	DUPLICATE	0.02	0.03	40.0	3111 B	10/13/1999	PD
Ni	DUPLICATE	0.01	0.01	0.0	3111 B	10/13/1999	PD
Pb	DUPLICATE	0.04	0.03	28.5	3111 B	10/13/1999	PD
Sb	DUPLICATE	0.33	0.27	20.0	3111 B	10/13/1999	PD
Se	DUPLICATE	0.080	0.075	6.4	3114 B	10/13/1999	PD
Zn	DUPLICATE	0.05	0.05	0.0	3111 B	10/13/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Analytical Spike

Lab ID Number	200-121-99	Well Number	001
Category	QAQC	Location	
Description	SEPTEMBER COMPOSITE 99	Parameter	TOTAL
QAQC Type	SPIKE	Date Sampled	09/21/1999
QAQC for LabID	208-034-99		

Analyte	Qaqc Type	Analysis	Original Value	Spike Added	Spike Recovery	Method Used	Date Analyzed	Analyst
As	SPIKE	0.032	0.022	0.010	100.0	3114 B 4.d	10/13/1999	PD
Cd	SPIKE	0.43	0.02	0.400	102.5	3111 B	10/13/1999	PD
Cu	SPIKE	0.43	0.03	0.400	100.0	3111 B	10/13/1999	PD
Ni	SPIKE	0.41	0.01	0.400	100.0	3111 B	10/13/1999	PD
Pb	SPIKE	0.44	0.03	0.400	102.5	3111 B	10/13/1999	PD
Sb	SPIKE	0.64	0.27	0.400	92.5	3111 B	10/13/1999	PD
Se	SPIKE	0.117	0.075	0.040	105.0	3114 B	10/13/1999	PD
Zn	SPIKE	0.46	0.05	0.400	102.5	3111 B	10/13/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Method Blank

Lab ID Number	200-128-99	Well Number	
Category	QAQC	Location	
Description	METHOD BLANK	Parameter	TOTAL
QAQC Type	BLANK	Date Sampled	10/13/1999
QAQC for LabID	208-034-99		

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
As	BLANK	<0.0001	3114 B 4.d	10/13/1999	PD
Cd	BLANK	<0.01	3111 B	10/13/1999	PD
Cu	BLANK	<0.01	3111 B	10/13/1999	PD
Ni	BLANK	<0.01	3111 B	10/13/1999	PD
Pb	BLANK	<0.01	3111 B	10/13/1999	PD
Sb	BLANK	<0.01	3111 B	10/13/1999	PD
Se	BLANK	<0.0001	3114 B	10/13/1999	PD
Zn	BLANK	<0.01	3111 B	10/13/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number 200-124-99
Category QAQC
Description ICV
QAQC Type STANDARD
QAQC for LabID 208-034-99

Well Number
Location
Parameter TOTAL
Date Sampled 10/13/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0020	0.0020	100.0	3114 B 4.d	10/13/1999	PD
Cd	STANDARD	1.00	1.0000	100.0	3111 B	10/13/1999	PD
Cu	STANDARD	1.00	1.0000	100.0	3111 B	10/13/1999	PD
Ni	STANDARD	1.00	1.0000	100.0	3111 B	10/13/1999	PD
Pb	STANDARD	1.00	1.0000	100.0	3111 B	10/13/1999	PD
Sb	STANDARD	1.00	1.0000	100.0	3111 B	10/13/1999	PD
Se	STANDARD	0.0020	0.0020	100.0	3114 B	10/13/1999	PD
Zn	STANDARD	1.00	1.0000	100.0	3111 B	10/13/1999	PD

Lab ID Number 200-125-99
Category QAQC
Description CCV
QAQC Type STANDARD
QAQC for LabID 208-034-99

Well Number
Location
Parameter TOTAL
Date Sampled 10/13/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0022	0.0020	110.0	3114 B 4.d	10/13/1999	PD
Cd	STANDARD	0.99	1.0000	99.0	3111 B	10/13/1999	PD
Cu	STANDARD	1.00	1.0000	100.0	3111 B	10/13/1999	PD
Ni	STANDARD	1.00	1.0000	100.0	3111 B	10/13/1999	PD
Pb	STANDARD	1.03	1.0000	103.0	3111 B	10/13/1999	PD
Sb	STANDARD	1.03	1.0000	103.0	3111 B	10/13/1999	PD
Se	STANDARD	0.0023	0.0020	115.0	3114 B	10/13/1999	PD
Zn	STANDARD	1.00	1.0000	100.0	3111 B	10/13/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number 200-126-99
Category QAQC
Description ICV
QAQC Type STANDARD
QAQC for LabID 208-034-99

Well Number
Location
Parameter TOTAL
Date Sampled 10/13/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0050	0.0050	100.0	3114 B 4.d	10/13/1999	PD
Cd	STANDARD	5.00	5.0000	100.0	3111 B	10/13/1999	PD
Cu	STANDARD	5.00	5.0000	100.0	3111 B	10/13/1999	PD
Ni	STANDARD	5.00	5.0000	100.0	3111 B	10/13/1999	PD
Pb	STANDARD	5.00	5.0000	100.0	3111 B	10/13/1999	PD
Sb	STANDARD	5.00	5.0000	100.0	3111 B	10/13/1999	PD
Se	STANDARD	0.0050	0.0050	100.0	3114 B	10/13/1999	PD
Zn	STANDARD	5.00	5.0000	100.0	3111 B	10/13/1999	PD

Lab ID Number 200-127-99
Category QAQC
Description CCV
QAQC Type STANDARD
QAQC for LabID 208-034-99

Well Number
Location
Parameter TOTAL
Date Sampled 10/13/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0050	0.0050	100.0	3114 B 4.d	10/13/1999	PD
Cd	STANDARD	4.98	5.0000	99.6	3111 B	10/13/1999	PD
Cu	STANDARD	5.01	5.0000	100.2	3111 B	10/13/1999	PD
Ni	STANDARD	5.04	5.0000	100.8	3111 B	10/13/1999	PD
Pb	STANDARD	5.03	5.0000	100.6	3111 B	10/13/1999	PD
Sb	STANDARD	4.97	5.0000	99.4	3111 B	10/13/1999	PD
Se	STANDARD	0.0053	0.0050	106.0	3114 B	10/13/1999	PD
Zn	STANDARD	5.01	5.0000	100.2	3111 B	10/13/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number	200-129-99	Well Number	
Category	QAQC	Location	
Description	REFERENCE	Parameter	TOTAL
QAQC Type	STANDARD	Date Sampled	10/13/1999
QAQC for LabID	208-034-99		

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.150	0.1330	112.7	3114 B 4.d	10/13/1999	PD
Cd	STANDARD	0.098	0.0920	106.5	3111 B	10/13/1999	PD
Cu	STANDARD	0.115	0.1150	100.0	3111 B	10/13/1999	PD
Ni	STANDARD	0.378	0.3890	97.1	3111 B	10/13/1999	PD
Pb	STANDARD	0.200	0.1890	105.8	3111 B	10/13/1999	PD
Sb	STANDARD	0.093	0.0990	93.9	3111 B	10/13/1999	PD
Se	STANDARD	0.111	0.1220	90.9	3114 B	10/13/1999	PD
Zn	STANDARD	0.665	0.6110	108.8	3111 B	10/13/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO INCORPORATED
Environmental Laboratory

GLOBE PLANT
495 E. 51ST AVENUE
DENVER, CO 80216

CHAIN OF CUSTODY RECORD

PROJ. NO.

PROJECT NAME: Cadmium Sulfide Waste H2O

SAMPLERS: (Signature) Patricia Dowell

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Metals unfiltered Acid						REMARKS
002	7/9/92	11:10		X	Tank outside S HP lab 350 gals.	1	X						Took sample from valve on bottom of the tank

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Patricia Dowell	7/9/92 11:10	Patricia Dowell			
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks	

Distribution: Original Accompanies Shipment; First Copy to Coordinator Field Files; Second Copy to Representative of Inspected Facility

Split Samples: ☐ Accepted ☐ Declined _____ Signature

AG-000807

ASARCO Incorporated
Quality Assurance Report Form

Lab ID Number	208-026-99	Well Number	002
Category	SEWER	Location	
Description	CDS JULY	Parameter	TOTAL
QAQC Type	SAMPLE	Date Sampled	07/09/1999

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
As	SAMPLE	0.0007	3114 B 4.d	07/12/1999	PD
Cd	SAMPLE	0.01	3111 B	07/12/1999	PD
Cu	SAMPLE	0.10	3111 B	07/12/1999	PD
Ni	SAMPLE	0.06	3111 B	07/12/1999	PD
Pb	SAMPLE	0.03	3111 B	07/12/1999	PD
Sb	SAMPLE	0.95	3111 B	07/12/1999	PD
Se	SAMPLE	0.005	3114 B	07/12/1999	PD
Zn	SAMPLE	0.09	3111 B	07/12/1999	PD

ASARCO Incorporated
Quality Assurance Report Form
Analytical Duplicate

Lab ID Number	200-085-99	Well Number	002
Category	QAQC	Location	
Description	CDS JULY	Parameter	TOTAL
QAQC Type	DUPLICATE	Date Sampled	07/09/1999
QAQC for LabID	208-026-99		

Analyte	Qaqc Type	Analysis	Original Sample Analysis	Percent RPD	Method Used	Date Analyzed	Analyst
As	DUPLICATE	0.0008	0.0007	13.3	3114 B 4.d	07/12/1999	PD
Cd	DUPLICATE	0.01	0.01	0.0	3111 B	07/12/1999	PD
Cu	DUPLICATE	0.11	0.10	9.5	3111 B	07/12/1999	PD
Ni	DUPLICATE	0.05	0.06	18.1	3111 B	07/12/1999	PD
Pb	DUPLICATE	0.03	0.03	0.0	3111 B	07/12/1999	PD
Sb	DUPLICATE	0.97	0.95	2.0	3111 B	07/12/1999	PD
Se	DUPLICATE	0.006	0.005	18.1	3114 B	07/12/1999	PD
Zn	DUPLICATE	0.11	0.09	20.0	3111 B	07/12/1999	PD

ASARCO Incorporated
Quality Assurance Report Form
Analytical Spike

Lab ID Number	200-086-99	Well Number	002
Category	QAQC	Location	
Description	CDS JULY	Parameter	TOTAL
QAQC Type	SPIKE	Date Sampled	07/09/1999
QAQC for LabID	208-026-99		

Analyte	Qaqc Type	Analysis	Original Value	Spike Added	Spike Recovery	Method Used	Date Analyzed	Analyst
As	SPIKE	0.0057	0.0007	0.005	100.0	3114 B 4.d	07/12/1999	PD
Cd	SPIKE	0.39	0.01	0.400	95.0	3111 B	07/12/1999	PD
Cu	SPIKE	0.49	0.10	0.400	97.5	3111 B	07/12/1999	PD
Ni	SPIKE	0.46	0.06	0.400	100.0	3111 B	07/12/1999	PD
Pb	SPIKE	0.40	0.03	0.400	92.5	3111 B	07/12/1999	PD
Sb	SPIKE	1.38	0.95	0.400	107.5	3111 B	07/12/1999	PD
Se	SPIKE	0.028	0.005	0.020	115.0	3114 B	07/12/1999	PD
Zn	SPIKE	0.52	0.09	0.400	107.5	3111 B	07/12/1999	PD

ASARCO Incorporated
Quality Assurance Report Form
Method Blank

Lab ID Number	200-075-99	Well Number	
Category	QAQC	Location	
Description	METHOD BLANK	Parameter	TOTAL
QAQC Type	BLANK	Date Sampled	07/12/1999
QAQC for LabID	208-026-99		

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
As	BLANK	<0.0005	3114 B 4.d	07/12/1999	PD
Cd	BLANK	<0.01	3111 B	07/12/1999	PD
Cu	BLANK	<0.01	3111 B	07/12/1999	PD
Ni	BLANK	<0.01	3111 B	07/12/1999	PD
Pb	BLANK	0.01	3111 B	07/12/1999	PD
Sb	BLANK	<0.02	3111 B	07/12/1999	PD
Se	BLANK	<0.0005	3114 B	07/12/1999	PD
Zn	BLANK	<0.01	3111 B	07/12/1999	PD

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number 200-076-99
Category QAQC
Description ICV
QAQC Type STANDARD
QAQC for LabID 208-026-99

Well Number
Location
Parameter TOTAL
Date Sampled 07/12/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0020	0.0020	100.0	3114 B 4.d	07/12/1999	PD
Cd	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD
Cu	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD
Ni	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD
Pb	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD
Sb	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD
Se	STANDARD	0.0020	0.0020	100.0	3114 B	07/12/1999	PD
Zn	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD

Lab ID Number 200-077-99
Category QAQC
Description CCV
QAQC Type STANDARD
QAQC for LabID 208-026-99

Well Number
Location
Parameter TOTAL
Date Sampled 07/12/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0020	0.0020	100.0	3114 B 4.d	07/12/1999	PD
Cd	STANDARD	1.02	1.0000	102.0	3111 B	07/12/1999	PD
Cu	STANDARD	1.02	1.0000	102.0	3111 B	07/12/1999	PD
Ni	STANDARD	0.98	1.0000	98.0	3111 B	07/12/1999	PD
Pb	STANDARD	1.00	1.0000	100.0	3111 B	07/12/1999	PD
Sb	STANDARD	0.99	1.0000	99.0	3111 B	07/12/1999	PD
Se	STANDARD	0.0019	0.0020	95.0	3114 B	07/12/1999	PD
Zn	STANDARD	1.05	1.0000	105.0	3111 B	07/12/1999	PD

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number 200-078-99
Category QAQC
Description ICV
QAQC Type STANDARD
QAQC for LabID 208-026-99

Well Number
Location
Parameter TOTAL
Date Sampled 07/12/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0050	0.0050	100.0	3114 B 4.d	07/12/1999	PD
Cd	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD
Cu	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD
Ni	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD
Pb	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD
Sb	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD
Se	STANDARD	0.0050	0.0050	100.0	3114 B	07/12/1999	PD
Zn	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD

Lab ID Number 200-079-99
Category QAQC
Description CCV
QAQC Type STANDARD
QAQC for LabID 208-026-99

Well Number
Location
Parameter TOTAL
Date Sampled 07/12/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0047	0.0050	94.0	3114 B 4.d	07/12/1999	PD
Cd	STANDARD	5.01	5.0000	100.2	3111 B	07/12/1999	PD
Cu	STANDARD	5.00	5.0000	100.0	3111 B	07/12/1999	PD
Ni	STANDARD	5.02	5.0000	100.4	3111 B	07/12/1999	PD
Pb	STANDARD	5.02	5.0000	100.4	3111 B	07/12/1999	PD
Sb	STANDARD	5.08	5.0000	101.6	3111 B	07/12/1999	PD
Se	STANDARD	0.0048	0.0050	96.0	3114 B	07/12/1999	PD
Zn	STANDARD	4.98	5.0000	99.6	3111 B	07/12/1999	PD

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number 200-080-99
Category QAQC
Description REFERENCE
QAQC Type STANDARD
QAQC for LabID 208-026-99

Well Number
Location
Parameter TOTAL
Date Sampled 07/12/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.124	0.1330	93.2	3114 B 4.d	07/12/1999	PD
Cd	STANDARD	0.092	0.0920	100.0	3111 B	07/12/1999	PD
Cu	STANDARD	0.114	0.1130	100.8	3111 B	07/12/1999	PD
Ni	STANDARD	0.321	0.3890	82.5	3111 B	07/12/1999	PD
Pb	STANDARD	0.184	0.1890	97.3	3111 B	07/12/1999	PD
Sb	STANDARD	0.094	0.0990	94.9	3111 B	07/12/1999	PD
Se	STANDARD	0.128	0.1220	104.9	3114 B	07/12/1999	PD
Zn	STANDARD	0.615	0.6110	100.6	3111 B	07/12/1999	PD

ASARCO INCORPORATED
Environmental Laboratory

CHAIN OF CUSTODY RECORD

495 E. 51ST AVENUE
DENVER, CO 80216

PROJ. NO.

PROJECT NAME: 002 Quarterly #3 CdS Wastewater

SAMPLERS: (Signature) Patricia Dowell

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Total Metals/HNO3 to pH<2						REMARKS
002	8/20/99	8:25		K	002 CdS	1	K						took sample from valve on bottom of tank

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Patricia Dowell	8/20/99 8:30	Patricia Dowell			
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks	

Distribution: Original Accompanies Shipment; First Copy to Coordinator Field Files; Second Copy to Representative of Inspected Facility

Split Samples: ☐ Accepted ☐ Declined _____ Signature

AG-000235

ASARCO Incorporated
Quality Assurance Report Form

Lab ID Number	208-031-99	Well Number	002
Category	SEWER	Location	
Description	CDS #1 AUGUST	Parameter	TOTAL
QAQC Type	SAMPLE	Date Sampled	08/20/1999

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
Cd	SAMPLE	0.07	3111 B	09/09/1999	PD
Cu	SAMPLE	0.13	3111 B	09/09/1999	PD
Ni	SAMPLE	<0.01	3111 B	09/09/1999	PD
Pb	SAMPLE	0.03	3111 B	09/09/1999	PD
Sb	SAMPLE	0.30	3111 B	09/09/1999	PD
Se	SAMPLE	0.003	3114 B	09/09/1999	DL
Zn	SAMPLE	<0.01	3111 B	09/09/1999	DL

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Analytical Duplicate

Lab ID Number	200-108-99	Well Number	002
Category	QAQC	Location	
Description	CDS #1 AUGUST	Parameter	TOTAL
QAQC Type	DUPLICATE	Date Sampled	08/20/1999
QAQC for LabID	208-031-99		

Analyte	Qaqc Type	Analysis	Original Sample Analysis	Percent RPD	Method Used	Date Analyzed	Analyst
Cd	DUPLICATE	0.07	0.07	0.0	3111 B	09/09/1999	PD
Cu	DUPLICATE	0.13	0.13	0.0	3111 B	09/09/1999	PD
Ni	DUPLICATE	0.01	<0.01	0.0	3111 B	09/09/1999	PD
Pb	DUPLICATE	0.02	0.03	40.0	3111 B	09/09/1999	PD
Sb	DUPLICATE	0.32	0.30	6.4	3111 B	09/09/1999	PD
Se	DUPLICATE	0.003	0.003	0.0	3114 B	09/09/1999	DL
Zn	DUPLICATE	<0.01	<0.01	0.0	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Analytical Spike

Lab ID Number	200-109-99	Well Number	002
Category	QAQC	Location	
Description	CDS #1 AUGUST	Parameter	TOTAL
QAQC Type	SPIKE	Date Sampled	08/20/1999
QAQC for LabID	208-031-99		

Analyte	Qaqc Type	Analysis	Original Value	Spike Added	Spike Recovery	Method Used	Date Analyzed	Analyst
Cd	SPIKE	0.51	0.07	0.400	110.0	3111 B	09/09/1999	PD
Cu	SPIKE	0.53	0.13	0.400	100.0	3111 B	09/09/1999	PD
Ni	SPIKE	0.40	<0.01	0.400	100.0	3111 B	09/09/1999	PD
Pb	SPIKE	0.42	0.03	0.400	97.5	3111 B	09/09/1999	PD
Sb	SPIKE	0.71	0.30	0.400	102.5	3111 B	09/09/1999	PD
Se	SPIKE	0.048	0.003	0.040	112.5	3114 B	09/09/1999	PD
Zn	SPIKE	0.41	<0.01	0.400	102.5	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Method Blank

Lab ID Number	200-104-99	Well Number	
Category	QAQC	Location	
Description	METHOD BLANK	Parameter	TOTAL
QAQC Type	BLANK	Date Sampled	09/09/1999
QAQC for LabID	208-031-99		

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
As	BLANK	0.0003	3114 B 4.d	09/09/1999	PD
Cd	BLANK	<0.01	3111 B	09/09/1999	PD
Cu	BLANK	<0.01	3111 B	09/09/1999	PD
Ni	BLANK	<0.01	3111 B	09/09/1999	PD
Pb	BLANK	<0.01	3111 B	09/09/1999	PD
Sb	BLANK	<0.01	3111 B	09/09/1999	PD
Se	BLANK	<0.0001	3114 B	09/09/1999	PD
Zn	BLANK	<0.01	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number 200-100-99
Category QAQC
Description ICV
QAQC Type STANDARD
QAQC for LabID 208-031-99

Well Number
Location
Parameter TOTAL
Date Sampled 09/09/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0020	0.0020	100.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Cu	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Ni	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Pb	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Sb	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Se	STANDARD	0.0020	0.0020	100.0	3114 B	09/09/1999	PD
Zn	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD

Lab ID Number 200-101-99
Category QAQC
Description CCV
QAQC Type STANDARD
QAQC for LabID 208-031-99

Well Number
Location
Parameter TOTAL
Date Sampled 09/09/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0024	0.0020	120.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	1.01	1.0000	101.0	3111 B	09/09/1999	PD
Cu	STANDARD	1.02	1.0000	102.0	3111 B	09/09/1999	PD
Ni	STANDARD	1.02	1.0000	102.0	3111 B	09/09/1999	PD
Pb	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Sb	STANDARD	0.98	1.0000	98.0	3111 B	09/09/1999	PD
Se	STANDARD	0.0021	0.0020	105.0	3114 B	09/09/1999	PD
Zn	STANDARD	1.03	1.0000	103.0	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number	200-102-99	Well Number	
Category	QAQC	Location	
Description	ICV	Parameter	TOTAL
QAQC Type	STANDARD	Date Sampled	09/09/1999
QAQC for LabID	208-031-99		

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0050	0.0050	100.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Cu	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Ni	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Pb	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Sb	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Se	STANDARD	0.0050	0.0050	100.0	3114 B	09/09/1999	PD
Zn	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD

Lab ID Number	200-103-99	Well Number	
Category	QAQC	Location	
Description	CCV	Parameter	TOTAL
QAQC Type	STANDARD	Date Sampled	09/09/1999
QAQC for LabID	208-031-99		

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0050	0.0050	100.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	5.01	5.0000	100.2	3111 B	09/09/1999	PD
Cu	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Ni	STANDARD	4.99	5.0000	99.8	3111 B	09/09/1999	PD
Pb	STANDARD	4.98	5.0000	99.6	3111 B	09/09/1999	PD
Sb	STANDARD	5.09	5.0000	101.8	3111 B	09/09/1999	PD
Se	STANDARD	0.0052	0.0050	104.0	3114 B	09/09/1999	PD
Zn	STANDARD	5.04	5.0000	100.8	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number	200-105-99	Well Number	
Category	QAQC	Location	
Description	REFERENCE	Parameter	TOTAL
QAQC Type	STANDARD	Date Sampled	09/09/1999
QAQC for LabID	208-031-99		

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.133	0.1330	100.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	0.098	0.0920	106.5	3111 B	09/09/1999	PD
Cu	STANDARD	0.115	0.1130	101.7	3111 B	09/09/1999	PD
Ni	STANDARD	0.380	0.3890	97.6	3111 B	09/09/1999	PD
Pb	STANDARD	0.185	0.1890	97.8	3111 B	09/09/1999	PD
Sb	STANDARD	0.100	0.0990	101.0	3111 B	09/09/1999	PD
Se	STANDARD	0.123	0.1220	100.8	3114 B	09/09/1999	PD
Zn	STANDARD	0.600	0.6110	98.1	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO INCORPORATED
Environmental Laboratory

CHAIN OF CUSTODY RECORD

495 E. 51ST AVENUE
DENVER, CO 80216

PROJ. NO.	PROJECT NAME
	002 Tank #2 CdS H2O

SAMPLERS: (Signature) Patricia Dowell

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Total Cd mg/L HNO3 7m µCd						REMARKS
002	8/23/99	7:20		X	002 CdS	1	X						outside High Purity

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Patricia Dowell	8/23/99 7:20	Patricia Dowell			
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks	

Distribution: Original Accompanies Shipment; First Copy to Coordinator Field Files; Second Copy to Representative of Inspected Facility

Split Samples: ☐ Accepted ☐ Declined _____ Signature

AG-000236

ASARCO Incorporated
Quality Assurance Report Form

Lab ID Number	208-032-99	Well Number	002
Category	SEWER	Location	
Description	CDS #2 AUGUST	Parameter	TOTAL
QAQC Type	SAMPLE	Date Sampled	08/23/1999

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
Cd	SAMPLE	0.07	3111 B	09/09/1999	PD
Cu	SAMPLE	0.02	3111 B	09/09/1999	PD
Ni	SAMPLE	0.02	3111 B	09/09/1999	PD
Pb	SAMPLE	0.13	3111 B	09/09/1999	PD
Sb	SAMPLE	0.20	3111 B	09/09/1999	PD
Se	SAMPLE	0.006	3114 B	09/09/1999	DL
Zn	SAMPLE	<0.01	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Analytical Duplicate

Lab ID Number 200-110-99
Category QAQC
Description CDS #2 AUGUST
QAQC Type DUPLICATE
QAQC for LabID 208-032-99

Well Number 002
Location
Parameter TOTAL
Date Sampled 08/23/1999

Analyte	Qaqc Type	Analysis	Original Sample Analysis	Percent RPD	Method Used	Date Analyzed	Analyst
Cd	DUPLICATE	0.08	0.07	13.3	3111 B	09/09/1999	PD
Cu	DUPLICATE	0.03	0.02	40.0	3111 B	09/09/1999	PD
Ni	DUPLICATE	0.02	0.02	0.0	3111 B	09/09/1999	PD
Pb	DUPLICATE	0.12	0.13	8.0	3111 B	09/09/1999	PD
Sb	DUPLICATE	0.19	0.20	5.1	3111 B	09/09/1999	PD
Se	DUPLICATE	0.004	0.006	40.0	3114 B	09/09/1999	DL
Zn	DUPLICATE	<0.01	<0.01	0.0	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Analytical Spike

Lab ID Number	200-111-99	Well Number	002
Category	QAQC	Location	
Description	CDS #2 AUGUST	Parameter	TOTAL
QAQC Type	SPIKE	Date Sampled	08/23/1999
QAQC for LabID	208-032-99		

Analyte	Qaqc Type	Analysis	Original Value	Spike Added	Spike Recovery	Method Used	Date Analyzed	Analyst
Cd	SPIKE	0.50	0.07	0.400	107.5	3111 B	09/09/1999	PD
Cu	SPIKE	0.41	0.02	0.400	97.5	3111 B	09/09/1999	PD
Ni	SPIKE	0.40	0.02	0.400	95.0	3111 B	09/09/1999	PD
Pb	SPIKE	0.50	0.13	0.400	92.5	3111 B	09/09/1999	PD
Sb	SPIKE	0.64	0.20	0.400	110.0	3111 B	09/09/1999	PD
Se	SPIKE	0.041	0.006	0.040	87.5	3114 B	09/09/1999	DL
Zn	SPIKE	0.41	<0.01	0.400	102.5	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Method Blank

Lab ID Number	200-104-99	Well Number	
Category	QAQC	Location	
Description	METHOD BLANK	Parameter	TOTAL
QAQC Type	BLANK	Date Sampled	09/09/1999
QAQC for LabID	208-032-99		

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
As	BLANK	0.0003	3114 B 4.d	09/09/1999	PD
Cd	BLANK	<0.01	3111 B	09/09/1999	PD
Cu	BLANK	<0.01	3111 B	09/09/1999	PD
Ni	BLANK	<0.01	3111 B	09/09/1999	PD
Pb	BLANK	<0.01	3111 B	09/09/1999	PD
Sb	BLANK	<0.01	3111 B	09/09/1999	PD
Se	BLANK	<0.0001	3114 B	09/09/1999	PD
Zn	BLANK	<0.01	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number 200-100-99
Category QAQC
Description ICV
QAQC Type STANDARD
QAQC for LabID 208-032-99

Well Number
Location
Parameter TOTAL
Date Sampled 09/09/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0020	0.0020	100.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Cu	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Ni	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Pb	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Sb	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Se	STANDARD	0.0020	0.0020	100.0	3114 B	09/09/1999	PD
Zn	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD

Lab ID Number 200-101-99
Category QAQC
Description CCV
QAQC Type STANDARD
QAQC for LabID 208-032-99

Well Number
Location
Parameter TOTAL
Date Sampled 09/09/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0024	0.0020	120.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	1.01	1.0000	101.0	3111 B	09/09/1999	PD
Cu	STANDARD	1.02	1.0000	102.0	3111 B	09/09/1999	PD
Ni	STANDARD	1.02	1.0000	102.0	3111 B	09/09/1999	PD
Pb	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Sb	STANDARD	0.98	1.0000	98.0	3111 B	09/09/1999	PD
Se	STANDARD	0.0021	0.0020	105.0	3114 B	09/09/1999	PD
Zn	STANDARD	1.03	1.0000	103.0	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number	200-102-99	Well Number	
Category	QAQC	Location	
Description	ICV	Parameter	TOTAL
QAQC Type	STANDARD	Date Sampled	09/09/1999
QAQC for LabID	208-032-99		

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0050	0.0050	100.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Cu	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Ni	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Pb	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Sb	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Se	STANDARD	0.0050	0.0050	100.0	3114 B	09/09/1999	PD
Zn	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD

Lab ID Number	200-103-99	Well Number	
Category	QAQC	Location	
Description	CCV	Parameter	TOTAL
QAQC Type	STANDARD	Date Sampled	09/09/1999
QAQC for LabID	208-032-99		

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0050	0.0050	100.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	5.01	5.0000	100.2	3111 B	09/09/1999	PD
Cu	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Ni	STANDARD	4.99	5.0000	99.8	3111 B	09/09/1999	PD
Pb	STANDARD	4.98	5.0000	99.6	3111 B	09/09/1999	PD
Sb	STANDARD	5.09	5.0000	101.8	3111 B	09/09/1999	PD
Se	STANDARD	0.0052	0.0050	104.0	3114 B	09/09/1999	PD
Zn	STANDARD	5.04	5.0000	100.8	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number	200-105-99	Well Number	
Category	QAQC	Location	
Description	REFERENCE	Parameter	TOTAL
QAQC Type	STANDARD	Date Sampled	09/09/1999
QAQC for LabID	208-032-99		

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.133	0.1330	100.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	0.098	0.0920	106.5	3111 B	09/09/1999	PD
Cu	STANDARD	0.115	0.1130	101.7	3111 B	09/09/1999	PD
Ni	STANDARD	0.380	0.3890	97.6	3111 B	09/09/1999	PD
Pb	STANDARD	0.185	0.1890	97.8	3111 B	09/09/1999	PD
Sb	STANDARD	0.100	0.0990	101.0	3111 B	09/09/1999	PD
Se	STANDARD	0.123	0.1220	100.8	3114 B	09/09/1999	PD
Zn	STANDARD	0.600	0.6110	98.1	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

METRO WASTEWATER RECLAMATION DISTRICT

CHAIN OF CUSTODY FORM -
SPLIT SAMPLES

SAMPLERS: Lance Wenbolz

SPLIT SAMPLE ALIQUOT OF METRO CONTROL NO.	INDUSTRIAL USER (I.U. Number)	SAMPLE DATE(S)	TIME (IF APPLIC.)	SAMPLE TYPE*	MONITORING POINT	SAMPLE PRESERVATIVE	METRO ANALYSES
397674	ASARCO #600	8/10-11/99	0845-0845	FC24	001	HNO_3	Cd, Cr, Cu, Pb, Ni Ag, Zn, As, Se

*SAMPLE TYPE (REQUIRED): G = GRAB, TC = TIME COMPOSITE, FC24 = FLOW COMPOSITE

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/12/99 0805	[signature]	[signature]	8-13 0819	[signature]
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)

Split sample results must be submitted to the appropriate connector and the Metro District.

The split sample must be properly maintained, and available to the Metro District for sample result evaluation.

WHITE - METRO DISTRICT'S COPY

YELLOW - INDUSTRY'S COPY

ASARCO Incorporated
Quality Assurance Report Form

Lab ID Number	209-011-99	Well Number	397674
Category	SEWER	Location	
Description	METRO SPLIT AUGUST	Parameter	TOTAL
QAQC Type	SAMPLE	Date Sampled	08/10/1999

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
As	SAMPLE	0.019	3114 B 4.d	09/09/1999	DL
Cd	SAMPLE	0.02	3111 B	09/09/1999	PD
Cu	SAMPLE	0.02	3111 B	09/09/1999	PD
Ni	SAMPLE	0.02	3111 B	09/09/1999	PD
Pb	SAMPLE	0.03	3111 B	09/09/1999	PD
Sb	SAMPLE	0.15	3111 B	09/09/1999	PD
Se	SAMPLE	0.102	3114 B	09/09/1999	DL
Zn	SAMPLE	0.06	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Analytical Duplicate

Lab ID Number	200-112-99	Well Number	397674
Category	QAQC	Location	
Description	METRO SPLIT	Parameter	TOTAL
QAQC Type	DUPLICATE	Date Sampled	08/10/1999
QAQC for LabID	209-011-99		

Analyte	Qaqc Type	Analysis	Original Sample Analysis	Percent RPD	Method Used	Date Analyzed	Analyst
As	DUPLICATE	0.019	0.019	0.0	3114 B 4.d	09/09/1999	DL
Cd	DUPLICATE	0.02	0.02	0.0	3111 B	09/09/1999	PD
Cu	DUPLICATE	0.03	0.02	40.0	3111 B	09/09/1999	PD
Ni	DUPLICATE	0.03	0.02	40.0	3111 B	09/09/1999	PD
Pb	DUPLICATE	0.04	0.03	28.5	3111 B	09/09/1999	PD
Sb	DUPLICATE	0.15	0.15	0.0	3111 B	09/09/1999	PD
Se	DUPLICATE	0.108	0.102	5.7	3114 B	09/09/1999	DL
Zn	DUPLICATE	0.08	0.06	28.5	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Analytical Spike

Lab ID Number	200-113-99	Well Number	397674
Category	QAQC	Location	
Description	METRO SPLIT AUGUST	Parameter	TOTAL
QAQC Type	SPIKE	Date Sampled	08/10/1999
QAQC for LabID	209-011-99		

Analyte	Qaqc Type	Analysis	Original Value	Spike Added	Spike Recovery	Method Used	Date Analyzed	Analyst
As	SPIKE	0.030	0.019	0.010	110.0	3114 B 4.d	09/09/1999	DL
Cd	SPIKE	0.43	0.02	0.400	102.5	3111 B	09/09/1999	PD
Cu	SPIKE	0.44	0.02	0.400	105.0	3111 B	09/09/1999	PD
Ni	SPIKE	0.43	0.02	0.400	102.5	3111 B	09/09/1999	PD
Pb	SPIKE	0.42	0.03	0.400	97.5	3111 B	09/09/1999	PD
Sb	SPIKE	0.55	0.15	0.400	100.0	3111 B	09/09/1999	PD
Se	SPIKE	0.143	0.102	0.040	102.5	3114 B	09/09/1999	DL
Zn	SPIKE	0.48	0.06	0.400	105.0	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Method Blank

Lab ID Number	200-104-99	Well Number	
Category	QAQC	Location	
Description	METHOD BLANK	Parameter	TOTAL
QAQC Type	BLANK	Date Sampled	09/09/1999
QAQC for LabID	209-011-99		

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
As	BLANK	0.0003	3114 B 4.d	09/09/1999	PD
Cd	BLANK	<0.01	3111 B	09/09/1999	PD
Cu	BLANK	<0.01	3111 B	09/09/1999	PD
Ni	BLANK	<0.01	3111 B	09/09/1999	PD
Pb	BLANK	<0.01	3111 B	09/09/1999	PD
Sb	BLANK	<0.01	3111 B	09/09/1999	PD
Se	BLANK	<0.0001	3114 B	09/09/1999	PD
Zn	BLANK	<0.01	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number 200-100-99
Category QAQC
Description ICV
QAQC Type STANDARD
QAQC for LabID 209-011-99

Well Number
Location
Parameter TOTAL
Date Sampled 09/09/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0020	0.0020	100.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Cu	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Ni	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Pb	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Sb	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Se	STANDARD	0.0020	0.0020	100.0	3114 B	09/09/1999	PD
Zn	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD

Lab ID Number 200-101-99
Category QAQC
Description CCV
QAQC Type STANDARD
QAQC for LabID 209-011-99

Well Number
Location
Parameter TOTAL
Date Sampled 09/09/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0024	0.0020	120.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	1.01	1.0000	101.0	3111 B	09/09/1999	PD
Cu	STANDARD	1.02	1.0000	102.0	3111 B	09/09/1999	PD
Ni	STANDARD	1.02	1.0000	102.0	3111 B	09/09/1999	PD
Pb	STANDARD	1.00	1.0000	100.0	3111 B	09/09/1999	PD
Sb	STANDARD	0.98	1.0000	98.0	3111 B	09/09/1999	PD
Se	STANDARD	0.0021	0.0020	105.0	3114 B	09/09/1999	PD
Zn	STANDARD	1.03	1.0000	103.0	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number 200-102-99
Category QAQC
Description ICV
QAQC Type STANDARD
QAQC for LabID 209-011-99

Well Number
Location
Parameter TOTAL
Date Sampled 09/09/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0050	0.0050	100.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Cu	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Ni	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Pb	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Sb	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Se	STANDARD	0.0050	0.0050	100.0	3114 B	09/09/1999	PD
Zn	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD

Lab ID Number 200-103-99
Category QAQC
Description CCV
QAQC Type STANDARD
QAQC for LabID 209-011-99

Well Number
Location
Parameter TOTAL
Date Sampled 09/09/1999

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.0050	0.0050	100.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	5.01	5.0000	100.2	3111 B	09/09/1999	PD
Cu	STANDARD	5.00	5.0000	100.0	3111 B	09/09/1999	PD
Ni	STANDARD	4.99	5.0000	99.8	3111 B	09/09/1999	PD
Pb	STANDARD	4.98	5.0000	99.6	3111 B	09/09/1999	PD
Sb	STANDARD	5.09	5.0000	101.8	3111 B	09/09/1999	PD
Se	STANDARD	0.0052	0.0050	104.0	3114 B	09/09/1999	PD
Zn	STANDARD	5.04	5.0000	100.8	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number	200-105-99	Well Number	
Category	QAQC	Location	
Description	REFERENCE	Parameter	TOTAL
QAQC Type	STANDARD	Date Sampled	09/09/1999
QAQC for LabID	209-011-99		

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STANDARD	0.133	0.1330	100.0	3114 B 4.d	09/09/1999	PD
Cd	STANDARD	0.098	0.0920	106.5	3111 B	09/09/1999	PD
Cu	STANDARD	0.115	0.1130	101.7	3111 B	09/09/1999	PD
Ni	STANDARD	0.380	0.3890	97.6	3111 B	09/09/1999	PD
Pb	STANDARD	0.185	0.1890	97.8	3111 B	09/09/1999	PD
Sb	STANDARD	0.100	0.0990	101.0	3111 B	09/09/1999	PD
Se	STANDARD	0.123	0.1220	100.8	3114 B	09/09/1999	PD
Zn	STANDARD	0.600	0.6110	98.1	3111 B	09/09/1999	PD

- Test methods conform to 40 CFR 136. See documents GES-WI4.3.2-4.0-07, GES-WI4.3.2-4.0-09 and GES-WI4.3.2-4.0-14 for more detailed information.

ASARCO Globe Plant
Discharge Log for Monitoring Point 001
Third Quarter 1999

Date	Volume (GPD)
07/01/99	27,088
07/02/99	21,107
07/03/99	66
07/04/99	162
07/05/99	0
07/06/99	26,835
07/07/99	40,537
07/08/99	41,800
07/09/99	40,753
07/10/99	0
07/11/99	0
07/12/99	58,604
07/13/99	58,683
07/14/99	53,412
07/15/99	56,488
07/16/99	42,098
07/17/99	0
07/18/99	0
07/19/99	53,513
07/20/99	54,936
07/21/99	14,518
07/22/99	40,198
07/23/99	18,186
07/24/99	0
07/25/99	0
07/26/99	1
07/27/99	0
07/28/99	28,467
07/29/99	0
07/30/99	0
07/31/99	0
08/01/99	0
08/02/99	26,766
08/03/99	31,865
08/04/99	34,649
08/05/99	33,046
08/06/99	0
08/07/99	0
08/08/99	0
08/09/99	60,157
08/10/99	71,046
08/11/99	88,508
08/12/99	53,173

ASARCO Globe Plant
Discharge Log for Monitoring Point 001
Third Quarter 1999

Date	Volume (GPD)
08/13/99	63,785
08/14/99	8
08/15/99	0
08/16/99	55,234
08/17/99	45,601
08/18/99	34,400
08/19/99	45,416
08/20/99	55,427
08/21/99	0
08/22/99	0
08/23/99	48,137
08/24/99	48,878
08/25/99	46,855
08/26/99	33,282
08/27/99	0
08/28/99	0
08/29/99	0
08/30/99	50,625
08/31/99	53,428
09/01/99	28,279
09/02/99	0
09/03/99	36,521
09/04/99	0
09/05/99	0
09/06/99	0
09/07/99	13,950
09/08/99	30,133
09/09/99	13,495
09/10/99	49,766
09/11/99	40,655
09/12/99	0
09/13/99	58,454
09/14/99	19,315
09/15/99	52,972
09/16/99	41,744
09/17/99	48,805
09/18/99	0
09/19/99	159
09/20/99	40,632
09/21/99	33,802
09/22/99	27,232
09/23/99	45,060
09/24/99	23,980

ASARCO Globe Plant
Discharge Log for Monitoring Point 001
Third Quarter 1999

Date	Volume (GPD)
09/25/99	0
09/26/99	0
09/27/99	43,652
09/28/99	71,438
09/29/99	43,127
09/30/99	41,101
09/30/99	

Maximum Daily Flow Volume =	88,508 gpd
Average Daily Flow Volume =	26,761 gpd

PERIODIC COMPLIANCE REPORT

NOTE: Periodic compliance reports (PCRs) are due on or before the last day of the month following the end of the reporting period and must be submitted to the address(es) listed in the "Reporting Requirements for Permittee" section of your wastewater discharge permit. Not all of the sections listed below apply to all permittees. Some permittees may also need to submit information in addition to the items appearing on this checklist. Consult your wastewater discharge permit for your specific reporting requirements.

Reporting period from January 95 to June 95

Date prepared _____ Phone 296-5900

Prepared by Wayne Rolle

A. FACILITY INFORMATION

Name ASARCO INCORPORATED

Location 495 E. 51st Ave
Denver, CO 80216

Phone 296-5900 Fax 296-0508 Emergency _____

B. FLOW MONITORING

(Flow monitoring information may be required for more than one Monitoring Point. Attach additional sheets as necessary. If no discharge occurred during the reporting period, complete the first line below and go to Section F.)

Monitoring Point 001 [ ] No discharge

Average daily flow volume 7800 [ ] Measured [✓] Estimated
(gallons per day)

Maximum daily flow volume 26,164 [ ] Measured [✓] Estimated
(gallons per day)

Monitoring Point _____ [ ] No discharge or [ ] Not applicable

Average daily flow volume _____ [ ] Measured [ ] Estimated
(gallons per day)

Maximum daily flow volume _____ [ ] Measured [ ] Estimated
(gallons per day)

Note: Daily flow volumes are used, in part, to determine self-monitoring and reporting frequencies. Reported values, especially estimates, must be as accurate as possible.

C. BATCH DISCHARGES

(Section B may also need to be completed by most batch dischargers. If no discharge occurred during the reporting period, complete the first line below and go to Section F.)

Monitoring Point Effluent Holding Tank [ ] No discharge or [ ] Not applicable

Number of batch discharges 142 [✓] Batch discharge log attached

Average volume of batch discharges 7069 (gallons per ~~day~~ batch)

Maximum volume of batch discharges 23964 (gallons per day)

Number of days with batch discharges 87

D. PRODUCTION INFORMATION

[X] Not applicable

[ ] Production data attached

E. SAMPLING RESULTS

Attach copies of the analytical results of all samplings of the regulated wastestreams performed by the permittee during the reporting period. Attach copies of the analytical results of all split samplings of the regulated wastestream performed by the permittee or other agency during the reporting period. Results transmitted to the permittee by any other agency, including the Metro District, do not have to be submitted, but must be kept on file for at least 3 years and be available for inspection.

Analytical results submitted with this PCR must contain the following information:

1. Concentrations and measurements of all parameters for which there are self-monitoring requirements.

2. The date, time and location of all sampling activities. Include the start-stop dates and times for composite samples.

(Note: To avoid self-monitoring reporting errors or violations, the analytical results included in this PCR should also contain the information listed below for all samples. At a minimum, this information must be kept on file for at least 3 years and be available for inspection.)

3. The method of sampling (grab, time composite, flow composite, or continuous measurement) and name of the person collecting the sample.

4. The name of the laboratory (or person) that performed the analyses.

5. The date the analyses were performed.

6. The analytical techniques/methods used for the analyses.

F. WASTE DISPOSAL

(Attach copies of disposal records for wastes hauled off-site during the reporting period, or provide a summary of waste disposal activities in the space provided below, or indicate "no activity" if no wastes were disposed of during the reporting period.)

[X] No waste disposal activity occurred during the reporting period

[ ] Disposal record copies attached

Waste Name	Volume	Ship Date	Disposal Company

G. EYEWASH CERTIFICATION STATEMENT

[ ] Not applicable

"Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standards for this facility, I certify that, to the best of my knowledge and belief, there was no eyewash discharge during any compliance monitoring event."

Signature of Authorized Representative _____ Date _____

Name (please print or type) _____

Title (please print or type) _____

H. CERTIFICATION STATEMENT FOR TOTAL TOXIC ORGANICS

[ ] Not applicable

"Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation for Total Toxic Organics, I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to the control authority."

Signature of Authorized Representative Date

Name (please print or type)

Title (please print or type)

I. ACCURACY AND COMPLETENESS CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. I further certify that there are no significant and/or regulated industrial process operations being conducted at this facility which discharge wastewater to the POTW and which are not covered by this report. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Authorized Representative Date

Name (please print or type)

Title (please print or type)

ASARCO

GLOBE PLANT

July 20, 1995 File: 2.45.5.2

Mr. Ted Graber
Metro Wastewater Reclamation
6450 York Street
Denver, Colorado 80229-7499

Re: Quarterly Sanitary Sewer Self-Monitoring

Dear Mr. Graber,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 06/20/95 0955 - 06/21/95 1000

Total flow for 24 HR:	14080	gallons
Total vol. collected:	7.3	liters
Number of samples:	20	
Arsenic (As)	0.012	ppm
Cadmium (Cd)	0.14	ppm
Copper (Cu)	0.03	ppm
Lead (Pb)	0.28	ppm
Nickel (Ni)	<0.025	ppm
Selenium (Se)	0.029	ppm
Zinc (Zn)	0.80	ppm

Grab Sample Date/Time: 06/20/95 1005

pH	6.8	pH units

Flow Data Date/Time 06/19/95 0930 - 06/20/95 0930

Total flow:	16540	gallons
Maximum flow:	1.16	gallons/sec
Average flow:	0.191	gallons/sec

Margaret Staub
Environmental Operations

ASARCO Incorporated, 495 East 51st Avenue, Denver, Colorado 80216-2098
Phone (303) 296-5900 FAX (303) 296-0508

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW DATA

Sample Date Started 6/19/95

Sample Time Started 0930

Sample Date Ended 6/20/95

Sample Time Ended 0930

Total Flow Over 24 hour Period 16540 gallons

Maximum Flow Rate during That 24 Hours 1.16 gallons/sec

Average Daily Flow Rate 0.191 gallons/sec

Sampling Performed By : [illegible]

Reviewed By: D L Lux

Date Reviewed : 7-21-95

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW COMPOSITE SAMPLING DATA

Sampling Date Started 6/20/95

Sampling time Started 0955

Sampling Date Ended 6/21/95

Sampling Time Ended 1000

Total Flow For 24 hour Period 14080 gallons

Number of Tanks Discharged 2

Number Of Samples Collected 20

Total Volume Collected 7.3 liters

Flow composite sample was collected using an ISCO 3710 sampler and a 2870 Flow Meter.

Total Metals:(ppm)

Arsenic	(As)	0.012	ppm
Cadmium	(Cd)	0.14	ppm
Copper	(Cu)	0.03	ppm
Lead	(Pb)	0.28	ppm
Nickel	(Ni)	<0.025	ppm
Selenium	(Se)	0.029	ppm
Zinc	(Zn)	0.80	ppm
pH		6.80	units

Date pH Grab Sample Taken: 6/20/95

Time pH Grab Sample Taken: 1005

Sampled By: [illegible]

Reviewed By: D C Lux

Date Reviewed: 7-21-95

ASARCO INCORPORATED
GLOBE PLANT

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/20/95 09:56:57

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
208-012-95	06/20/95	SEWER	GLOBE	001 COMP

Ag:		ppm	Cu:	0.03	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.012	ppm	Fe:		ppm	Pb:	0.28	ppm	S:	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.029	ppm	pH:		
Cd:	0.14	ppm	Mn:		ppm	Tl:		ppm			APP:
Cr:		ppm	Na:		ppm	Zn:	0.80	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
208-011-95	06/20/95	SEWER	GLOBE	PH GRAB

Ag:		ppm	Cu:		ppm	Ni:		ppm	SO4:	ppm	ACC: X
As:		ppm	Fe:		ppm	Pb:		ppm	S:	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:		ppm	pH:	6.8	
Cd:		ppm	Mn:		ppm	Tl:		ppm			APP:
Cr:		ppm	Na:		ppm	Zn:		ppm			

ASARCO Incorporated
Quality Assurance Report Form
Analytical Duplicate

Lab ID Number 200-005-95
Project Number
Category SEWER

Well Number
Parameter TOTAL
Date Sampled 06/20/95

Analyte	Qaqc Type	Analysis	Original Sample Analysis	Percent RPD	Method Used	Date Analyzed	Analyst
As	DUPLI	0.011	0.012	8.7	3114 B	07/07/95	WR
Cd	DUPLI	0.14	0.14	0.0	3114 B	07/07/00	WR
Cu	DUPLI	0.03	0.03	0.0	3114 B	07/07/95	WR
Ni	DUPLI	<0.025	<0.025	***.*	3114 B	07/07/95	WR
Pb	DUPLI	0.24	0.28	15.3	3114 B	07/07/95	WR
Se	DUPLI	0.025	0.029	14.8	3114 B	07/07/95	WR
Zn	DUPLI	0.83	0.80	3.6	3114 B	07/07/95	WR

ASARCO Incorporated
Quality Assurance Report Form
Analytical Spike

Lab ID Number 200-006-95
Project Number
Category SEWER

Well Number
Parameter TOTAL
Date Sampled 06/20/95

Analyte	Qaqc Type	Analysis	Original Value	Spike Added	Spike Recovery	Method Used	Date Analyzed	Analyst
As	SPIKE	0.029	0.012	0.020	85.0	3114 B	07/07/95	WR
Cd	SPIKE	1.14	0.14	1.000	100.0	3114 B	07/07/95	WR
Cu	SPIKE	1.03	0.03	1.000	100.0	3114 B	07/07/95	WR
Ni	SPIKE	0.94	<0.025	1.000	94.0	3114 B	07/07/95	WR
Pb	SPIKE	1.20	0.28	1.000	92.0	3114 B	07/07/95	WR
Se	SPIKE	0.050	0.029	0.020	105.0	3114 B	07/07/95	WR
Zn	SPIKE	1.84	0.80	1.000	104.0	3114 B	07/07/95	WR

ASARCO Incorporated
Quality Assurance Report Form
Method Blank

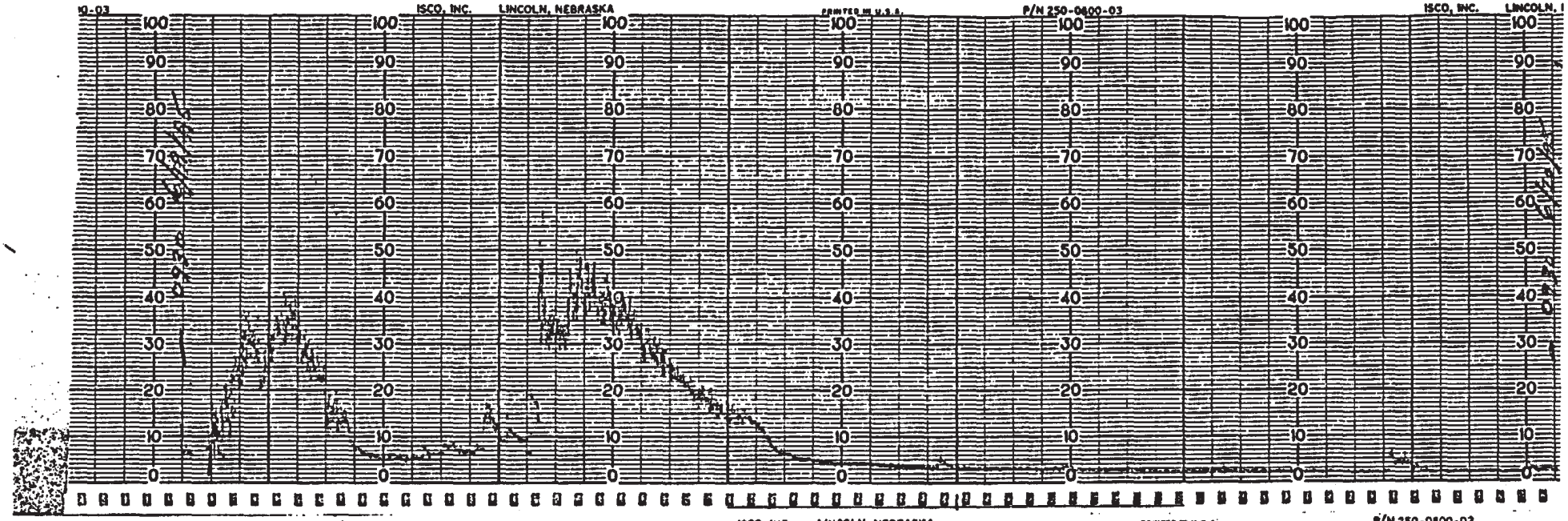
Lab ID Number	200-007-95	Well Number	
Project Number		Parameter	TOTAL
Category	SEWER	Date Sampled	07/07/95

Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
As	BLANK	<0.002	3114 B	07/07/95	WR
Cd	BLANK	<0.01	3114 B	07/07/95	WR
Cu	BLANK	<0.01	3114 B	07/07/95	WR
Ni	BLANK	<0.025	3114 B	07/07/95	WR
Pb	BLANK	<0.05	3114 B	07/07/95	WR
Se	BLANK	<0.002	3114 B	07/07/95	WR
Zn	BLANK	<0.01	3114 B	07/07/95	WR

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number	200-008-95	Well Number	
Project Number		Parameter	TOTAL
Category	SEWER	Date Sampled	07/07/95

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STAND	0.090	0.093	96.7	3114 B	07/07/95	WR
Cd	STAND	0.11	0.099	111.1	3114 B	07/07/95	WR
Cu	STAND	0.28	0.260	107.6	3114 B	07/07/95	WR
Ni	STAND	0.33	0.357	92.4	3114 B	07/07/95	WR
Pb	STAND	0.27	0.243	111.1	3114 B	07/07/95	WR
Se	STAND	0.142	0.137	103.6	3114 B	07/07/95	WR
Zn	STAND	0.18	0.222	81.0	3114 B	07/07/95	WR


ISCO, INC. LINCOLN, NEBRASKA
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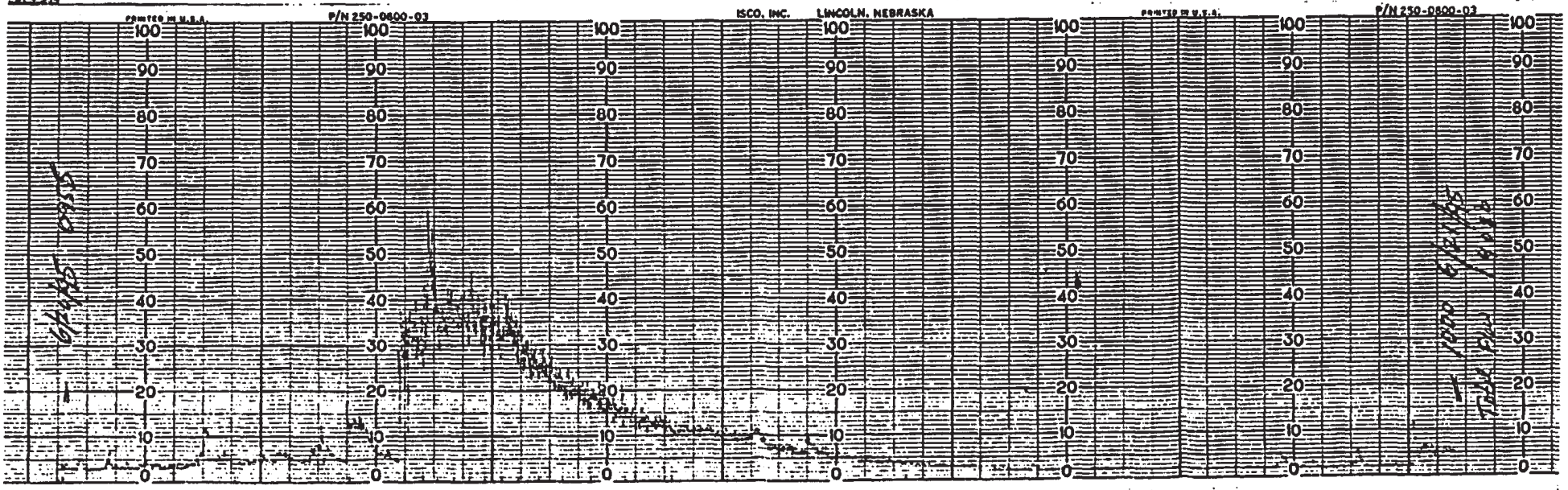
P/N 250-0800-03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P/N 250-0800-03

ASARCO INCORPORATED
GLOBE PLANT

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/20/95 09:59:10

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
208-001-95	01/11/95	SEWER	GLOBE	METALS COMP

Ag:		ppm	Cu:	0.043	ppm	Ni:	0.018	ppm	SO4:	ppm	ACC: X
As:	0.003	ppm	Fe:		ppm	Pb:	0.155	ppm	S:	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH:		
Cd:	0.13	ppm	Mn:		ppm	Tl:		ppm			APP:
Cr:		ppm	Na:		ppm	Zn:	1.11	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
208-002-95	01/11/95	SEWER	GLOBE	PH GRAB

Ag:		ppm	Cu:		ppm	Ni:		ppm	SO4:	ppm	ACC: X
As:		ppm	Fe:		ppm	Pb:		ppm	S:	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:		ppm	pH:	6.6	
Cd:		ppm	Mn:		ppm	Tl:		ppm			APP:
Cr:		ppm	Na:		ppm	Zn:		ppm			

ASARCO INCORPORATED
GLOBE PLANT

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/20/95 10:00:13

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
208-009-95	04/26/95	SEWER	GLOBE	METALS COMP

Ag:		ppm	Cu:	0.02	ppm	Ni:	0.07	ppm	SO4:	ppm	ACC: X
As:	0.002	ppm	Fe:		ppm	Pb:	0.23	ppm	S:	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.007	ppm	pH:		APP:
Cd:	0.05	ppm	Mn:		ppm	Tl:		ppm			
Cr:		ppm	Na:		ppm	Zn:	0.15	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
208-010-95	04/26/95	SEWER	GLOBE	PH GRAB

Ag:		ppm	Cu:		ppm	Ni:		ppm	SO4:	ppm	ACC: X
As:		ppm	Fe:		ppm	Pb:		ppm	S:	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:		ppm	pH:	6.9	APP:
Cd:		ppm	Mn:		ppm	Tl:		ppm			
Cr:		ppm	Na:		ppm	Zn:		ppm			

ASARCO INCORPORATED
GLOBE PLANT

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/20/95 10:01:24

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
209-006-95	06/21/95	SEWER	METRO	METRO SPLIT

Ag:		ppm	Cu:	0.05	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.005	ppm	Fe:		ppm	Pb:	0.30	ppm	S:		ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.035	ppm	pH:			APP:
Cd:	0.08	ppm	Mn:		ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.36	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
209-007-95	06/22/95	SEWER	METRO	METRO SPLIT

Ag:		ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.007	ppm	Fe:		ppm	Pb:	0.24	ppm	S:		ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.019	ppm	pH:			APP:
Cd:	0.03	ppm	Mn:		ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.11	ppm				

ASARCO INCORPORATED
GLOBE PLANT

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/19/95 13:56:28

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-001-95	01/03/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	<0.1	ppm	Pb:	0.07	ppm	S: 4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.014	ppm	pH: 6.7		APP: X
Cd:	0.26	ppm	Mn:	0.62	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	3.95	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-007-95	01/05/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.3	ppm	Pb:	0.10	ppm	S: 4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH: 7.2		APP: X
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.03	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-008-95	01/06/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.3	ppm	Pb:	<0.05	ppm	S: 4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.006	ppm	pH: 7.3		APP: X
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.01	ppm			

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/19/95 13:56:28

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-009-95	01/11/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	<0.1	ppm	Pb:	0.1	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH: 5.8		APP: X
Cd:	0.18	ppm	Mn:	0.35	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	1.70	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-010-95	01/13/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.6	ppm	Pb:	0.05	ppm	S: 4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH: 7.6		APP: X
Cd:	0.02	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.11	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-011-95	01/17/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	<0.1	ppm	Pb:	<0.05	ppm	S: 3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH: 5.6		APP: X
Cd:	0.11	ppm	Mn:	0.30	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	1.78	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-012-95	01/17/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.5	ppm	Pb:	0.17	ppm	S: 3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.007	ppm	pH: 6.4		APP: X
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.07	ppm			

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/19/95 13:56:28

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-013-95	01/18/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.003	ppm	Fe:	0.3	ppm	Pb:	<0.05	ppm	S: 4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.004	ppm	pH: 7.1		APP: X
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.01	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-014-95	01/19/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.007	ppm	Fe:	0.2	ppm	Pb:	<0.05	ppm	S: 3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH: 6.9		APP: X
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.02	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-015-95	01/23/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.007	ppm	Fe:	0.4	ppm	Pb:	<0.05	ppm	S: 4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.002	ppm	pH: 6.9		APP: X
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.04	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-017-95	01/25/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.005	ppm	Fe:	0.6	ppm	Pb:	0.17	ppm	S: 3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH: 7.3		APP: X
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.04	ppm			

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-018-95	01/30/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.002	ppm	Fe:	0.6	ppm	Pb:	0.29	ppm	S: 3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.010	ppm	pH: 6.4		APP: X
Cd:	0.05	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.16	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-019-95	01/31/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.013	ppm	Fe:	<0.1	ppm	Pb:	0.05	ppm	S: <1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH: 6.1		APP: X
Cd:	0.15	ppm	Mn:	0.13	ppm	Tl:	<0.01	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	1.70	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-022-95	02/01/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.03	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.002	ppm	Fe:	0.3	ppm	Pb:	0.09	ppm	S: 3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.009	ppm	pH: 7.6		APP: X
Cd:	0.02	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.05	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-023-95	02/03/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.011	ppm	Fe:	0.2	ppm	Pb:	<0.05	ppm	S: 3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH: 7.1		APP: X
Cd:	0.04	ppm	Mn:	0.03	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.05	ppm			

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-024-95	02/06/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:	<0.01	ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.005	ppm	Fe:	0.8	ppm	Pb:	<0.05	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.007	ppm	pH: 5.8		APP: X
Cd:	0.11	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	2.47	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-025-95	02/06/95	WATER TREATMENT	BIOBEAD	12 TANK

Ag:	<0.01	ppm	Cu:	0.03	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.4	ppm	Pb:	<0.05	ppm	S: <1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.011	ppm	pH: 7.4		APP: X
Cd:	0.04	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.12	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-026-95	02/08/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.3	ppm	Pb:	<0.05	ppm	S: 3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.009	ppm	pH: 6.9		APP: X
Cd:	0.02	ppm	Mn:	0.04	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.02	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-027-95	02/09/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.003	ppm	Fe:	0.9	ppm	Pb:	<0.05	ppm	S: 1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.012	ppm	pH: 6.9		APP: X
Cd:	0.04	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.08	ppm			

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-028-95	02/13/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	<0.1	ppm	Pb:	<0.05	ppm	S: 1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.003	ppm	pH: 5.9		
Cd:	0.03	ppm	Mn:	0.08	ppm	Tl:	<0.1	ppm			APP: X
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.15	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-029-95	02/13/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.6	ppm	Pb:	0.23	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.009	ppm	pH: 6.5		
Cd:	0.02	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			APP: X
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.06	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-033-95	02/14/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.5	ppm	Pb:	0.25	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.028	ppm	pH: 7.0		
Cd:	0.02	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			APP: X
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.02	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-034-95	02/17/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.2	ppm	Pb:	<0.05	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.174	ppm	pH: 7.1		
Cd:	0.02	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			APP: X
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.06	ppm			

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-035-95	02/20/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.002	ppm	Fe:	0.5	ppm	Pb:	<0.05	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.013	ppm	pH: 7.0		APP: X
Cd:	0.04	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	<0.01	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-036-95	02/21/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.006	ppm	Fe:	<0.1	ppm	Pb:	<0.05	ppm	S: <1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH: 6.8		APP: X
Cd:	0.15	ppm	Mn:	0.60	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	3.20	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-037-95	02/21/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.4	ppm	Pb:	0.30	ppm	S: 1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.018	ppm	pH: 6.4		APP: X
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.18	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-038-95	02/23/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.011	ppm	Fe:	0.7	ppm	Pb:	0.40	ppm	S: 1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.009	ppm	pH: 6.8		APP: X
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.07	ppm			

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-039-95	02/28/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	<0.002	ppm	Fe:	<0.1	ppm	Pb:	<0.05	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.011	ppm	pH:	5.0		
Cd:	0.14	ppm	Mn:	0.44	ppm	Tl:	<0.1	ppm				APP: X
Cr:	<0.05	ppm	Na:		ppm	Zn:	2.08	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-040-95	02/28/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	<0.002	ppm	Fe:	0.2	ppm	Pb:	0.46	ppm	S:	4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.013	ppm	pH:	6.8		
Cd:	0.04	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm				APP: X
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.25	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-043-95	03/06/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	<0.002	ppm	Fe:	0.2	ppm	Pb:	0.15	ppm	S:	1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.015	ppm	pH:	6.4		
Cd:	0.04	ppm	Mn:	0.31	ppm	Tl:	<0.1	ppm				APP: X
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.13	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-044-95	03/06/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	<0.002	ppm	Fe:	0.5	ppm	Pb:	1.52	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.015	ppm	pH:	7.3		
Cd:	0.03	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm				APP: X
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.20	ppm				

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-045-95	03/14/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:	<0.01	ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.007	ppm	Fe:	0.8	ppm	Pb:	0.08	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH: 5.4		APP: X
Cd:	0.03	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.01	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-046-95	03/14/95	WATER TREATMENT	BIOBEAD	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.003	ppm	Fe:	<0.1	ppm	Pb:	<0.05	ppm	S: <1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.003	ppm	pH: 5.9		APP: X
Cd:	0.04	ppm	Mn:	0.19	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.03	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-047-95	03/17/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.002	ppm	Fe:	0.9	ppm	Pb:	0.41	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH: 6.6		APP: X
Cd:	0.03	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.17	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-048-95	03/21/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	0.03	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.1	ppm	Pb:	<0.05	ppm	S: 1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.003	ppm	pH: 5.4		APP: X
Cd:	0.28	ppm	Mn:	0.89	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	3.35	ppm			

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-049-95	03/21/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.4	ppm	Pb:	<0.05	ppm	S: 5	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH: 6.9		APP: X
Cd:	0.02	ppm	Mn:	0.04	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.10	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-050-95	03/23/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.006	ppm	Fe:	1.1	ppm	Pb:	0.12	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.003	ppm	pH: 6.3		APP: X
Cd:	0.02	ppm	Mn:	0.03	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.15	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-051-95	03/24/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.005	ppm	Fe:	0.2	ppm	Pb:	0.05	ppm	S: <1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.007	ppm	pH: 6.3		APP: X
Cd:	0.39	ppm	Mn:	0.94	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	6.00	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-052-95	03/24/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.002	ppm	Fe:	0.4	ppm	Pb:	0.18	ppm	S: 4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.014	ppm	pH: 6.0		APP: X
Cd:	0.02	ppm	Mn:	0.04	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.23	ppm			

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WATER TREATMENT

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-053-95	03/27/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.004	ppm	Fe:	<0.1	ppm	Pb:	0.05	ppm	S: <1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.006	ppm	pH: 6.1		APP: X
Cd:	0.31	ppm	Mn:	0.72	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	3.35	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-054-95	03/27/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.004	ppm	Fe:	0.3	ppm	Pb:	0.05	ppm	S: 3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.010	ppm	pH: 7.0		APP: X
Cd:	0.03	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.14	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-055-95	03/29/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.005	ppm	Fe:	0.5	ppm	Pb:	<0.05	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.006	ppm	pH: 7.5		APP: X
Cd:	0.03	ppm	Mn:	0.04	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.07	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-056-95	03/30/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.004	ppm	Fe:	<0.1	ppm	Pb:	0.10	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH: 6.3		APP: X
Cd:	0.19	ppm	Mn:	0.52	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	2.64	ppm			

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-057-95	03/30/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.7	ppm	Pb:	0.19	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.002	ppm	pH: 6.1		APP: X
Cd:	0.04	ppm	Mn:	0.04	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.23	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-058-95	03/31/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.5	ppm	Pb:	<0.05	ppm	S: 4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.002	ppm	pH: 7.4		APP: X
Cd:	0.06	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.08	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-061-95	04/03/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.5	ppm	Pb:	0.08	ppm	S: 3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH: 7.4		APP: X
Cd:	0.05	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.13	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-062-95	04/04/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.005	ppm	Fe:	0.2	ppm	Pb:	<0.05	ppm	S: 1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.004	ppm	pH: 7.8		APP: X
Cd:	0.10	ppm	Mn:	0.24	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	1.24	ppm			

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-063-95	04/04/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.010	ppm	Fe:	0.5	ppm	Pb:	<0.05	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.006	ppm	pH: 7.5		
Cd:	0.02	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			APP: X
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.11	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-064-95	04/05/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.03	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.003	ppm	Fe:	0.7	ppm	Pb:	<0.05	ppm	S: 4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.003	ppm	pH: 7.4		
Cd:	0.04	ppm	Mn:	0.04	ppm	Tl:	<0.1	ppm			APP: X
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.04	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-065-95	04/10/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.3	ppm	Pb:	<0.05	ppm	S: 4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH: 6.0		
Cd:	0.03	ppm	Mn:	0.03	ppm	Tl:	<0.1	ppm			APP: X
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.09	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-066-95	04/11/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.3	ppm	Pb:	0.41	ppm	S: 3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH: 6.8		
Cd:	0.08	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			APP: X
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.14	ppm			

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-067-95	04/17/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.005	ppm	Fe:	<0.1	ppm	Pb:	0.06	ppm	S: 3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.002	ppm	pH: 6.6		APP: X
Cd:	0.24	ppm	Mn:	0.86	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	3.52	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-068-95	04/17/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.2	ppm	Pb:	0.12	ppm	S: 3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH: 7.1		APP: X
Cd:	0.01	ppm	Mn:	0.03	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.09	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-069-95	04/18/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.004	ppm	Fe:	1.0	ppm	Pb:	0.08	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.004	ppm	pH: 6.8		APP: X
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.16	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-070-95	04/20/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.002	ppm	Fe:	<0.1	ppm	Pb:	<0.05	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.006	ppm	pH: 6.4		APP: X
Cd:	0.34	ppm	Mn:	1.09	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	4.85	ppm			

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-071-95	04/21/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.002	ppm	Fe:	0.3	ppm	Pb:	0.05	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH: 7.2		APP: X
Cd:	0.02	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.07	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-072-95	04/21/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.007	ppm	Fe:	0.6	ppm	Pb:	0.10	ppm	S: 1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH: 7.0		APP: X
Cd:	0.02	ppm	Mn:	0.03	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.50	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-073-95	04/25/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002	ppm	Fe:	0.2	ppm	Pb:	0.16	ppm	S: 4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.004	ppm	pH: 7.2		APP: X
Cd:	0.03	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.12	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-074-95	04/26/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	<0.01	ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.007	ppm	Fe:	0.2	ppm	Pb:	<0.05	ppm	S: 1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.003	ppm	pH: 7.5		APP: X
Cd:	0.04	ppm	Mn:	0.17	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.56	ppm			

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-075-95	04/27/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.002	ppm	Fe:	0.1	ppm	Pb:	0.21	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.003	ppm	pH: 7.7		APP: X
Cd:	0.06	ppm	Mn:	<0.025	ppm	Tl:	0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.12	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-076-95	04/28/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.004	ppm	Fe:	0.2	ppm	Pb:	0.18	ppm	S: 4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.009	ppm	pH: 10.8		APP: X
Cd:	0.04	ppm	Mn:	0.03	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.13	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-077-95	05/01/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.007	ppm	Fe:	0.1	ppm	Pb:	<0.05	ppm	S: 2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.011	ppm	pH: 7.7		APP: X
Cd:	0.01	ppm	Mn:	0.04	ppm	Tl:	<0.1	ppm			
Cr:	0.07	ppm	Na:		ppm	Zn:	0.05	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-078-95	05/01/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	<0.01	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.006	ppm	Fe:	0.1	ppm	Pb:	0.69	ppm	S: 6	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.003	ppm	pH: 11.1		APP: X
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:	<0.1	ppm			
Cr:	<0.05	ppm	Na:		ppm	Zn:	0.06	ppm			

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-079-95	05/02/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.002	ppm	Fe:		ppm	Pb:	0.42	ppm	S:	8	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.013	ppm	pH:	11.2		
Cd:	0.01	ppm	Mn:	0.03	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.07	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-082-95	05/03/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.006	ppm	Fe:		ppm	Pb:	0.07	ppm	S:	4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.007	ppm	pH:	7.9		
Cd:	0.07	ppm	Mn:	0.28	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.59	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-083-95	05/03/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.005	ppm	Fe:		ppm	Pb:	0.89	ppm	S:	5	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.002	ppm	pH:	11.2		
Cd:	0.02	ppm	Mn:	<0.025	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.30	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-084-95	05/05/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.007	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH:	6.5		
Cd:	0.42	ppm	Mn:	1.12	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	5.2	ppm				

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-085-95	05/05/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.003	ppm	Fe:		ppm	Pb:	1.50	ppm	S:	6	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.007	ppm	pH:	11.2		
Cd:	0.05	ppm	Mn:	0.09	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.65	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-086-95	05/08/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.009	ppm	Fe:		ppm	Pb:	0.65	ppm	S:	5	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH:	7.9		
Cd:	0.08	ppm	Mn:	0.17	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	1.08	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-087-95	05/09/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.009	ppm	Fe:	<0.1	ppm	Pb:	<0.05	ppm	S:	1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.004	ppm	pH:	6.0		
Cd:	0.37	ppm	Mn:	0.96	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	4.72	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-088-95	05/09/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.002	ppm	Fe:	0.3	ppm	Pb:	0.08	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.013	ppm	pH:	7.2		
Cd:	0.02	ppm	Mn:	0.03	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.21	ppm				

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-089-95	05/11/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.03	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	<0.002	ppm	Fe:		ppm	Pb:	0.42	ppm	S:	4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.019	ppm	pH:	11.6		
Cd:	<0.01	ppm	Mn:	<0.025	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.16	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-090-95	05/12/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.011	ppm	Fe:		ppm	Pb:	0.16	ppm	S:	1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.004	ppm	pH:	9.5		
Cd:	0.31	ppm	Mn:	0.84	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	5.1	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-091-95	05/12/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	0.04	ppm	SO4:		ppm	ACC: X
As:	0.004	ppm	Fe:		ppm	Pb:	0.05	ppm	S:	7	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.002	ppm	pH:	11.6		
Cd:	<0.01	ppm	Mn:	0.04	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.18	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-092-95	05/15/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.008	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.014	ppm	pH:	7.6		
Cd:	0.23	ppm	Mn:	0.47	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	3.32	ppm				

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WATER TREATMENT

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-093-95	05/15/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.006	ppm	Fe:		ppm	Pb:	0.14	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.007	ppm	pH:	10.6		
Cd:	0.01	ppm	Mn:	0.03	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.06	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-094-95	05/16/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.005	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.004	ppm	pH:	9.2		
Cd:	0.15	ppm	Mn:		ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	1.84	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-095-95	05/16/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.014	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.012	ppm	pH:	11.6		
Cd:	0.02	ppm	Mn:		ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.22	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-096-95	05/17/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.020	ppm	Fe:		ppm	Pb:	0.05	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH:	7.0		
Cd:	0.20	ppm	Mn:	0.52	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	2.67	ppm				

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WATER TREATMENT

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-097-95	05/17/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.010	ppm	Fe:		ppm	Pb:	0.08	ppm	S:	3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH:	11.5		
Cd:	0.01	ppm	Mn:	0.04	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.04	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-098-95	05/18/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.03	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.004	ppm	Fe:		ppm	Pb:	0.09	ppm	S:	5	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH:	10.7		
Cd:	0.02	ppm	Mn:	<0.025	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.09	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-099-95	05/19/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	<0.002	ppm	Fe:		ppm	Pb:	0.08	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.002	ppm	pH:	8.8		
Cd:	0.06	ppm	Mn:		ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	1.05	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-100-95	05/19/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	<0.002	ppm	Fe:		ppm	Pb:	0.15	ppm	S:	3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.007	ppm	pH:	11.6		
Cd:	0.01	ppm	Mn:		ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.12	ppm				

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-101-95	05/22/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.03	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.017	ppm	Fe:		ppm	Pb:	0.25	ppm	S:	4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH:	7.7		APP: X
Cd:	0.02	ppm	Mn:	0.03	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.10	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-102-95	05/22/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.016	ppm	Fe:		ppm	Pb:	0.17	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH:	8.7		APP: X
Cd:	0.22	ppm	Mn:	0.67	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	3.65	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-103-95	05/23/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.004	ppm	Fe:		ppm	Pb:	0.08	ppm	S:	4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.012	ppm	pH:	11.6		APP: X
Cd:	<0.01	ppm	Mn:	<0.025	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.05	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-102-95	05/23/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.008	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.002	ppm	pH:	8.6		APP:
Cd:	0.19	ppm	Mn:	0.53	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	3.34	ppm				

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-105-95	05/24/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.022	ppm	Fe:		ppm	Pb:	0.15	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH:	7.5		APP: X
Cd:	0.25	ppm	Mn:	0.63	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	5.10	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-106-95	05/24/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.008	ppm	Fe:		ppm	Pb:	0.20	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.015	ppm	pH:	11.6		APP: X
Cd:	0.04	ppm	Mn:	<0.025	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.32	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-107-95	05/25/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	0.03	ppm	Ni:	0.05	ppm	SO4:		ppm	ACC: X
As:	0.081	ppm	Fe:		ppm	Pb:	0.07	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH:	6.6		APP: X
Cd:	0.61	ppm	Mn:	0.95	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	13.5	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-108-95	05/25/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.009	ppm	Fe:		ppm	Pb:	0.16	ppm	S:	3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH:	11.5		APP: X
Cd:	0.05	ppm	Mn:	<0.025	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.58	ppm				

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-109-95	05/26/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	0.03	ppm	Ni:	0.03	ppm	SO4:		ppm	ACC: X
As:	0.056	ppm	Fe:		ppm	Pb:	0.10	ppm	S:	1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH:	7.2		APP: X
Cd:	0.29	ppm	Mn:	0.52	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	5.90	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-110-95	05/26/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.013	ppm	Fe:		ppm	Pb:	0.20	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.018	ppm	pH:	7.2		APP: X
Cd:	0.03	ppm	Mn:	<0.025	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.21	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-111-95	05/30/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	0.06	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.040	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.020	ppm	pH:	7.5		APP: X
Cd:	0.29	ppm	Mn:	0.53	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	6.0	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-112-95	05/30/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.010	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.015	ppm	pH:	11.2		APP: X
Cd:	0.04	ppm	Mn:	<0.025	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.35	ppm				

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-113-95	05/31/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.030	ppm	Fe:		ppm	Pb:	0.10	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.004	ppm	pH:	11.0		
Cd:	0.20	ppm	Mn:	0.28	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	4.25	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-114-95	05/31/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.006	ppm	Fe:		ppm	Pb:	0.12	ppm	S:	3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.006	ppm	pH:	11.6		
Cd:	0.01	ppm	Mn:	0.04	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.08	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-117-95	06/01/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	0.07	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.027	ppm	Fe:		ppm	Pb:	0.11	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH:	9.0		
Cd:	0.13	ppm	Mn:	0.26	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	2.01	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-118-95	06/01/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.06	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.016	ppm	Fe:		ppm	Pb:	0.18	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.007	ppm	pH:	6.5		
Cd:	0.02	ppm	Mn:	0.03	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.19	ppm				

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-119-95	06/02/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.009	ppm	Fe:		ppm	Pb:	0.05	ppm	S:	40	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.010	ppm	pH:	11.7		APP: X
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.04	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-120-95	06/04/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.005	ppm	Fe:		ppm	Pb:	0.08	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.003	ppm	pH:	8.4		APP: X
Cd:	0.03	ppm	Mn:	0.08	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.47	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-121-95	06/04/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.010	ppm	Fe:		ppm	Pb:	0.16	ppm	S:	50	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.019	ppm	pH:	11.4		APP: X
Cd:	<0.01	ppm	Mn:	0.03	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.04	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-122-95	06/05/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.015	ppm	Fe:		ppm	Pb:	0.14	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH:	8.4		APP: X
Cd:	0.12	ppm	Mn:	0.29	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	1.78	ppm				

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-123-95	06/05/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.011	ppm	Fe:		ppm	Pb:	0.29	ppm	S:	3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.006	ppm	pH:	11.3		APP: X
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.03	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-124-95	06/06/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.005	ppm	Fe:		ppm	Pb:	0.15	ppm	S:	1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH:	7.2		APP: X
Cd:	0.01	ppm	Mn:		ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.04	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-125-95	06/06/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.005	ppm	Fe:		ppm	Pb:	0.54	ppm	S:	3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.018	ppm	pH:	8.2		APP: X
Cd:	0.04	ppm	Mn:		ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.06	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-126-95	06/07/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.011	ppm	Fe:		ppm	Pb:	0.14	ppm	S:	1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH:	7.5		APP: X
Cd:	0.15	ppm	Mn:	0.047	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	1.94	ppm				

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-127-95	06/07/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	ppm	Cu:	0.01 ppm	Ni:	<0.025 ppm	SO4:	ppm	ACC: X
As:	0.006 ppm	Fe:	ppm	Pb:	0.49 ppm	S:	3 ppm	REJ:
Ca:	ppm	Mg:	ppm	Se:	0.029 ppm	pH:	11.1	APP: X
Cd:	0.03 ppm	Mn:	0.04 ppm	Tl:	ppm			
Cr:	ppm	Na:	ppm	Zn:	0.05 ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-128-95	06/08/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:	ppm	Cu:	<0.01 ppm	Ni:	<0.025 ppm	SO4:	ppm	ACC: X
As:	0.007 ppm	Fe:	ppm	Pb:	0.09 ppm	S:	2 ppm	REJ:
Ca:	ppm	Mg:	ppm	Se:	0.004 ppm	pH:	11.2	APP: X
Cd:	0.08 ppm	Mn:	ppm	Tl:	ppm			
Cr:	ppm	Na:	ppm	Zn:	1.26 ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-129-95	06/08/95	WATER TREATMENT	BIOBEAD	12 TANK

Ag:	ppm	Cu:	<0.01 ppm	Ni:	<0.025 ppm	SO4:	ppm	ACC: X
As:	0.021 ppm	Fe:	ppm	Pb:	0.19 ppm	S:	1 ppm	REJ:
Ca:	ppm	Mg:	ppm	Se:	0.029 ppm	pH:	7.9	APP: X
Cd:	0.02 ppm	Mn:	ppm	Tl:	ppm			
Cr:	ppm	Na:	ppm	Zn:	0.11 ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-130-95	06/09/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	ppm	Cu:	<0.01 ppm	Ni:	<0.025 ppm	SO4:	ppm	ACC: X
As:	0.005 ppm	Fe:	ppm	Pb:	<0.05 ppm	S:	1 ppm	REJ:
Ca:	ppm	Mg:	ppm	Se:	0.009 ppm	pH:	8.2	APP: X
Cd:	0.02 ppm	Mn:	ppm	Tl:	ppm			
Cr:	ppm	Na:	ppm	Zn:	0.27 ppm			

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-131-95	06/09/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.016	ppm	Fe:		ppm	Pb:	0.23	ppm	S:	5	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.021	ppm	pH:	11.4		APP: X
Cd:	<0.01	ppm	Mn:		ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.02	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-132-95	06/11/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.002	ppm	Fe:		ppm	Pb:	0.11	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.005	ppm	pH:	11.1		APP: X
Cd:	0.15	ppm	Mn:		ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	2.09	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-133-95	06/11/95	WATER TREATMENT	BIOBEAD	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.011	ppm	Fe:		ppm	Pb:	0.27	ppm	S:	8	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.009	ppm	pH:	11.2		APP: X
Cd:	0.02	ppm	Mn:		ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.34	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-134-95	06/13/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	<0.002	ppm	Fe:		ppm	Pb:	0.14	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.003	ppm	pH:	9.0		APP: X
Cd:	0.03	ppm	Mn:		ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.22	ppm				

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Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-135-95	06/13/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.003	ppm	Fe:		ppm	Pb:	0.23	ppm	S:	1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH:	11.5		
Cd:	0.02	ppm	Mn:		ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.11	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-136-95	06/14/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	<0.002	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH:	8.7		
Cd:	0.07	ppm	Mn:	0.26	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.74	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-137-95	06/14/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.003	ppm	Fe:		ppm	Pb:	0.31	ppm	S:	9	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH:	11.5		
Cd:	<0.01	ppm	Mn:	<0.025	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.06	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-138-95	06/15/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.007	ppm	Fe:		ppm	Pb:	0.07	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.002	ppm	pH:	7.7		
Cd:	<0.01	ppm	Mn:		ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.06	ppm				

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/19/95 13:56:40

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-139-95	06/15/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.04	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.004	ppm	Fe:		ppm	Pb:	0.39	ppm	S:	4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH:	11.5		
Cd:	0.02	ppm	Mn:		ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.08	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-140-95	06/16/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.003	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	<1	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.004	ppm	pH:	6.6		
Cd:	<0.01	ppm	Mn:		ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	1.27	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-141-95	06/16/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.002	ppm	Fe:		ppm	Pb:	0.56	ppm	S:	6	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.006	ppm	pH:	9.5		
Cd:	0.09	ppm	Mn:		ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.08	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-142-95	06/19/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.003	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH:	6.7		
Cd:	0.11	ppm	Mn:	0.39	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	1.53	ppm				

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/19/95 13:56:40

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-143-95	06/19/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	<0.002	ppm	Fe:		ppm	Pb:	0.14	ppm	S:	6	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH:	11.4		APP: X
Cd:	<0.01	ppm	Mn:	<0.025	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.03	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-144-95	06/19/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.002	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH:	6.1		APP: X
Cd:	0.07	ppm	Mn:	0.21	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.91	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-145-95	06/19/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.004	ppm	Fe:		ppm	Pb:	1.78	ppm	S:	6	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.009	ppm	pH:	11.5		APP: X
Cd:	<0.01	ppm	Mn:	<0.025	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.01	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-146-95	06/20/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.003	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.006	ppm	pH:	6.6		APP: X
Cd:	0.05	ppm	Mn:		ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.31	ppm				

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/19/95 13:56:40

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-147-95	06/20/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.007 ppm	Fe:	ppm		Pb:	0.33	ppm	S:	3 ppm	REJ:
Ca:	ppm	Mg:	ppm		Se:	0.002	ppm	pH:	11.4	
Cd:	0.02 ppm	Mn:	ppm		Tl:		ppm			APP: X
Cr:	ppm	Na:	ppm		Zn:	0.03	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-148-95	06/21/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:	ppm	Cu:	0.02	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.003 ppm	Fe:	ppm		Pb:	0.50	ppm	S:	2 ppm	REJ:
Ca:	ppm	Mg:	ppm		Se:	0.010	ppm	pH:	10.8	
Cd:	0.03 ppm	Mn:	ppm		Tl:		ppm			APP: X
Cr:	ppm	Na:	ppm		Zn:	0.25	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-149-95	06/21/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.005 ppm	Fe:	ppm		Pb:	0.66	ppm	S:	6 ppm	REJ:
Ca:	ppm	Mg:	ppm		Se:	0.008	ppm	pH:	11.1	
Cd:	0.01 ppm	Mn:	ppm		Tl:		ppm			APP: X
Cr:	ppm	Na:	ppm		Zn:	0.02	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-150-95	06/22/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:	ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	<0.002 ppm	Fe:	ppm		Pb:	0.14	ppm	S:	6 ppm	REJ:
Ca:	ppm	Mg:	ppm		Se:	<0.002	ppm	pH:	11.1	
Cd:	<0.01 ppm	Mn:	ppm		Tl:		ppm			APP: X
Cr:	ppm	Na:	ppm		Zn:	0.04	ppm			

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/19/95 13:56:41

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-151-95	06/22/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.003	ppm	Fe:		ppm	Pb:	0.21	ppm	S:	4	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.002	ppm	pH:	11.0		APP: X
Cd:	0.01	ppm	Mn:		ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.12	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-152-95	06/22/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.003	ppm	Fe:		ppm	Pb:	0.18	ppm	S:	6	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH:	11.2		APP: X
Cd:	<0.01	ppm	Mn:		ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.01	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-153-95	06/23/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.002	ppm	Fe:		ppm	Pb:	0.13	ppm	S:	7	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	<0.002	ppm	pH:	11.2		APP: X
Cd:	0.02	ppm	Mn:	<0.025	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	0.55	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-154-95	06/23/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	<0.002	ppm	Fe:		ppm	Pb:	0.20	ppm	S:	5	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.003	ppm	pH:	11.2		APP: X
Cd:	<0.01	ppm	Mn:	<0.025	ppm	Tl:		ppm				
Cr:		ppm	Na:		ppm	Zn:	<0.01	ppm				

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/19/95 13:56:41

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-155-95	06/26/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.012	ppm	Fe:		ppm	Pb:	0.48	ppm	S:	8	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.015	ppm	pH:	11.3		
Cd:	0.04	ppm	Mn:	0.06	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.19	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-156-95	06/26/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.005	ppm	Fe:		ppm	Pb:	0.24	ppm	S:	5	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.015	ppm	pH:	11.2		
Cd:	0.01	ppm	Mn:	<0.025	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.13	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-157-95	06/27/95	WATER TREATMENT	9&10 TANK	11 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.009	ppm	Fe:		ppm	Pb:	0.22	ppm	S:	10	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.016	ppm	pH:	11.3		
Cd:	0.02	ppm	Mn:	0.05	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.33	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-158-95	06/27/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.007	ppm	Fe:		ppm	Pb:	0.38	ppm	S:	6	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.011	ppm	pH:	11.4		
Cd:	0.02	ppm	Mn:	0.03	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.18	ppm				

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/19/95 13:56:42

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-159-95	06/28/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.008	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	3	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.013	ppm	pH:	11.0		
Cd:	0.23	ppm	Mn:	0.82	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	3.42	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-160-95	06/28/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.004	ppm	Fe:		ppm	Pb:	0.26	ppm	S:	5	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.008	ppm	pH:	11.4		
Cd:	<0.01	ppm	Mn:	0.04	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.21	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-161-95	06/29/95	WATER TREATMENT	BIOBEAD	11 TANK

Ag:		ppm	Cu:	<0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.006	ppm	Fe:		ppm	Pb:	<0.05	ppm	S:	2	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.004	ppm	pH:	9.4		
Cd:	0.09	ppm	Mn:	0.29	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	1.23	ppm				

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
205-162-95	06/29/95	WATER TREATMENT	9&10 TANK	12 TANK

Ag:		ppm	Cu:	0.01	ppm	Ni:	<0.025	ppm	SO4:		ppm	ACC: X
As:	0.016	ppm	Fe:		ppm	Pb:	0.42	ppm	S:	10	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.016	ppm	pH:	11.4		
Cd:	0.11	ppm	Mn:	0.16	ppm	Tl:		ppm				APP: X
Cr:		ppm	Na:		ppm	Zn:	0.94	ppm				

Jan. 1995

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
DL	1/4	11	1142	70	2786262		7388
WR	1/5	12	1530	70	237220		6607
DL	1/8	12	1430	70	243827		6918
WR	1/11	11	0820	70	2793650		6677
WR	1/13	12	1430	70	250745		6737
WR	1/17	11	1505	70	2800327		6535 667
WR	1/17	12	1505	70	257482		7381
WR	1/18	12	1515	70	264863		7807
WR	1/19	12	1505	70	272670		6849
WR	1/23	12	1520	70	279519		7684
WR	1/25	12	1503	70	287203		6212
WR	1/30	12	1525	70	293415	301032	7617
DL	1/31	11	1445	70	2806862	2814480	7618
					#12	63812	
					#11	28218	
						92030 /	gal
				13 Tanks			

Feb. 1995

WASTE WATER TREATMENT FLOW METER REPORT

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
WR	2/1/95	12	1540	70	301032		7663
WR	2/3/95	12	1530	70	308695		7755
WR	2/6/95	11	1530	70	2814380		6390
↓	↓	12	↓	↓	316450		7571
WR	2/8/95	12	1540	70	324021		7869
WR	2/9/95	12	1510	70	331890		6965
WR	2/13	11	1420	70	2820770		6278
↓	↓	12	↓	↓	338855		7335
DL	2/14	12	1513	70	346190		6737
WR	2/17	12	1410	70	352927		7648
DL	2/20	12	1630	70	360575		7726
DL	2/21	11	1600	35	2827048		7518
↓	↓	12	↓	70	368301		8470
DL	2/23	12	1612	70	376771		7532
WR	2/28	11	1522	70	2854566	2841113	6547 26 73
↓	↓	12	↓	70	384303	391692	7389 90 66
							11739
						11	

March, 1995

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
WR	3/6	11	1424	70	284113		5903
↓	↓	12	↓	↓	39652		7435
WR	3/14	11	1530	70	2847016		7854
↓	↓	12	↓	↓	399127		8339
WR	3/17	12	1450	70	407466		8192
WR	3/21	11	1437	70	2854870		6912
↓	↓	12	↓	↓	416658		7841
DY	3/23	12	1530	70	423499		7116
DY	3/24	11	1440	70	2861782		6734
↓	↓	12	↓	↓	430615		6865
DY	3/27	11	1520	70	2868516		6964
↓	↓	12	↓	↓	437480		8473
WR	3/29	12	1510	70	445953		9645
WR	3/30	11	1530	70	2875480	2881906	6426
↓	↓	12	↓	↓	455598		8140
WR	3/31	12	1530	70	463738	471297	7559
				16 Tanks		120,398	

April, 1995

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
WR	4/3	12	1623	70	471897		7874
WR	4/4	11	1512	70	2881905		6490
		12			479171		8288
WR	4/6	12	0925	70	487459		7221
WR	4/10	12	1510	70	494680		7231
WR	4/11	12	1425	70	501911		7389
WR	4/17	11	1535	70	2888395		5421
		12			509300		7518
DL	4/18	12	1542	70	516818		7126
WR	4/20	11	1452	40	2893816		6784
DL	4/21	12	924	70	523944	(1st 1/2)	2252
DL	4/21	12	1424	70	526196	(2nd 1/2)	4548
WR	4/25	12	1530	70	530744		7776
WR	4/26	11	1530	70	2900600	2905149	7549
WR	4/27	12	1600	70	538520		7537
WR	4/28	12	1505	70	546059	554249	8190
						11	26244
			15 tanks			12	82852
							109,096

May, 1995

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
WR	5/1	11	0950	70	2908149		7673
↓	5/1	12	↓	↓	554249		7845
WR	5/2	12	1440	70	562094		7368
WR	5/3	11	1515	70	2915822		7122
↓	↓	12	↓	↓	569462		7244
WR	5/5	11	1440	70	2922941		8254
↓	↓	12	↓	↓	576706		7716
WR	5/8	12	1430	70	584422		7498
DV	5/9	11	1522	70	2931198		7342
↓	↓	12	↓	↓	591920		7460
WR	5/11	12	1506	70	599380		6665
WR	5/12	11	1520	70	2938540		6993
↓	↓	12	↓	↓	606045		7932
DV	5/15	11	1630	70	2945533		6955
↓	↓	12	↓	↓	613977		6982
WR	5/16	11	1520	70	2952488		5149
↓	↓	12	↓	↓	620955		7052
DV	5/17	11	1541	70	2957687		6518
↓	↓	12	↓	↓	628011		7155
WR	5/18	12	1535	70	635166		6844
WR	5/19	11	1515	70	2964155		7719
↓	↓	12	↓	↓	642010		7655
DV	5/22	12	1139	70	649665		7457
↓	5/22	11	1525	70	2971874		8263

May, 1995

WASTE WATER TREATMENT FLOW METER REPORT

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
JL	5/23	11	1550	70	2980137		7011
		12			657122		7078
JL	5/24	~~11~~ 12	2145	70	664200		7307
		~~12~~ 11			2987148		7277
JL	5/25	11	1535	70	2994425		6810
		12			671507		7448
JL	5/26	11	1538	70	3001235		5230
		12			678955		7341
JL	5/30	11	1555	70	3006465		6310
		12			686296		7536
JL	5/31	11	1520	70	3012775	3020550	7775
		12			693832	701916	8084
						112401	
						147667	
			36	Tanks		260068	gals

June, 1995

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
DL	6/1	11	1515	70	3020550		6583
		12			701916		7825
DL	6/2	12	1440	70	709741		2470
DL	6/5	11	500	70	3027133		6800
		12			712241		* 12673
WL	6/5	11	1545	70	3033933		7199
		12			724884		8160
WL	6/6	11	1530	70	3041132		5003
		12			733044		7788
WL	6/7	11	1630	70	3046135		6215
		12			740832		7388
WL	6/8	11	1530	70	3052350		6335
		12			748220		7111
WL	6/10	11	1720	70	3058685		7949
		12		70	755331		* 13052
WL	6/12	11	1150	70	3066634		6873
	6/12	12		70	768383		6630
WL	6/13	11	1530	70	3073507		8132
		12		70	778013		7753
WL	6/14	11	1515	70	782766		7152
		12			3081639		7098
WL	6/16	11	1600	70	3088737		6895
		12			789918		7838
WL	6/16	11	1630	70	3095632		5779
		12			797756		6962
WL	6/19	11	0845	70	[illegible]		7301

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
WL	6/19	11	1530	70	3108712		2453
↓	↓	12	↓	↓	812064		6864
WL	6/20	11	1530	70	3111165		4847
↓	↓	12	↓	↓	818928		7856
WL	6/21	11	1620	70	3116012		7542
↓	↓	12	↓	↓	826784		7584
WL	6/22	12	1030	70	834368		5708
WL	6/22	11	1545	70	3123554		7794
↓	↓	12	↓	↓	840076		4659
WL	6/23	11	0855	70	3131348		3063
↓	↓	12	↓	↓	844735		5195
WL	6/26	11	1450	70	3134431		2039
↓	↓	12	↓	↓	849930		8064
WL	6/27	11	1525	70	3136470		4440
↓	↓	12	↓	↓	857994		4609
WL	6/28	11	1510	70	3140910		3008
↓	↓	12	↓	↓	862603		6940
WL	6/29	11	1455	70	3143918		6370
↓	↓	12	↓	↓	869543		7446
						3150288	129738
						876989	175073
							304811 gal

ASARCO. For period 7/94 thru 12/94

H. CERTIFICATION STATEMENT FOR TOTAL TOXIC ORGANICS

[✓] Not applicable

"Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation for Total Toxic Organics, I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to the control authority."

Signature of Authorized Representative _____ Date _____

Name (please print or type) _____

Title (please print or type) _____

I. ACCURACY AND COMPLETENESS CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. I further certify that, there has not been any change(s) in the Research and Development activities at this facility that have significantly changed the process wastewater discharged to the POTW, or that notification of changed discharges was submitted to the Metro District as required per Section F.4 of the permit. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Margaret W. Stawb
Signature of Authorized Representative

2/3/95
Date

Margaret W. Stawb
Name (please print or type)

Senior Environmental Engineer
Title (please print or type)

ASARCO

GLOBE PLANT

July 20, 1995 File: 2.45.5.2

Mr. Ted Graber
Metro Wastewater Reclamation
6450 York Street
Denver, Colorado 80229-7499

Re: Quarterly Sanitary Sewer Self-Monitoring

Dear Mr. Graber,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 06/20/95 0955 - 06/21/95 1000

Total flow for 24 HR:	14080	gallons
Total vol. collected:	7.3	liters
Number of samples:	20	
Arsenic (As)	0.012	ppm
Cadmium (Cd)	0.14	ppm
Copper (Cu)	0.03	ppm
Lead (Pb)	0.28	ppm
Nickel (Ni)	<0.025	ppm
Selenium (Se)	0.029	ppm
Zinc (Zn)	0.80	ppm

Grab Sample Date/Time: 06/20/95 1005

pH	6.8	pH units

Flow Data Date/Time 06/19/95 0930 - 06/20/95 0930

Total flow:	16540	gallons
Maximum flow:	1.16	gallons/sec
Average flow:	0.191	gallons/sec

Margaret Staub
Environmental Operations

ASARCO Incorporated, 495 East 51st Avenue, Denver, Colorado 80216-2098
Phone (303) 296-5900 FAX (303) 296-0508

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW DATA

Sample Date Started 6/19/95

Sample Time Started 0930

Sample Date Ended 6/20/95

Sample Time Ended 0930

Total Flow Over 24 hour Period 16540 gallons

Maximum Flow Rate during That 24 Hours 1.16 gallons/sec

Average Daily Flow Rate 0.191 gallons/sec

Sampling Performed By : [illegible]

Reviewed By: D L Lux

Date Reviewed : 7-21-95

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW COMPOSITE SAMPLING DATA

Sampling Date Started 6/20/95

Sampling time Started 0955

Sampling Date Ended 6/21/95

Sampling Time Ended 1000

Total Flow For 24 hour Period 14080 gallons

Number of Tanks Discharged 2

Number Of Samples Collected 20

Total Volume Collected 7.3 liters

Flow composite sample was collected using an ISCO 3710 sampler and a 2870 Flow Meter.

Total Metals:(ppm)

Arsenic	(As)	0.012	ppm
Cadmium	(Cd)	0.14	ppm
Copper	(Cu)	0.03	ppm
Lead	(Pb)	0.28	ppm
Nickel	(Ni)	<0.025	ppm
Selenium	(Se)	0.029	ppm
Zinc	(Zn)	0.80	ppm
pH		6.80	units

Date pH Grab Sample Taken: 6/20/95

Time pH Grab Sample Taken: 1005

Sampled By: [illegible]

Reviewed By: D C Lux

Date Reviewed: 7-21-95

ASARCO INCORPORATED
GLOBE PLANT

ANALYSIS REPORT FORM

WATER TREATMENT

Printed: 07/20/95 09:56:57

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
208-012-95	06/20/95	SEWER	GLOBE	001 COMP

Ag:		ppm	Cu:	0.03	ppm	Ni:	<0.025	ppm	SO4:	ppm	ACC: X
As:	0.012	ppm	Fe:		ppm	Pb:	0.28	ppm	S:	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:	0.029	ppm	pH:		APP:
Cd:	0.14	ppm	Mn:		ppm	Tl:		ppm			
Cr:		ppm	Na:		ppm	Zn:	0.80	ppm			

Lab ID	Date Samp	Sample ID	Sample Type	Sample Description
208-011-95	06/20/95	SEWER	GLOBE	PH GRAB

Ag:		ppm	Cu:		ppm	Ni:		ppm	SO4:	ppm	ACC: X
As:		ppm	Fe:		ppm	Pb:		ppm	S:	ppm	REJ:
Ca:		ppm	Mg:		ppm	Se:		ppm	pH:	6.8	APP:
Cd:		ppm	Mn:		ppm	Tl:		ppm			
Cr:		ppm	Na:		ppm	Zn:		ppm			

ASARCO Incorporated
Quality Assurance Report Form
Analytical Duplicate

Lab ID Number	200-005-95	Well Number	
Project Number		Parameter	TOTAL
Category	SEWER	Date Sampled	06/20/95

Analyte	Qaqc Type	Analysis	Original Sample Analysis	Percent RPD	Method Used	Date Analyzed	Analyst
As	DUPLI	0.011	0.012	8.7	3114 B	07/07/95	WR
Cd	DUPLI	0.14	0.14	0.0	3114 B	07/07/00	WR
Cu	DUPLI	0.03	0.03	0.0	3114 B	07/07/95	WR
Ni	DUPLI	<0.025	<0.025	***.*	3114 B	07/07/95	WR
Pb	DUPLI	0.24	0.28	15.3	3114 B	07/07/95	WR
Se	DUPLI	0.025	0.029	14.8	3114 B	07/07/95	WR
Zn	DUPLI	0.83	0.80	3.6	3114 B	07/07/95	WR

ASARCO Incorporated
Quality Assurance Report Form
Analytical Spike

Lab ID Number 200-006-95
Project Number
Category SEWER

Well Number
Parameter TOTAL
Date Sampled 06/20/95

Analyte	Qaqc Type	Analysis	Original Value	Spike Added	Spike Recovery	Method Used	Date Analyzed	Analyst
As	SPIKE	0.029	0.012	0.020	85.0	3114 B	07/07/95	WR
Cd	SPIKE	1.14	0.14	1.000	100.0	3114 B	07/07/95	WR
Cu	SPIKE	1.03	0.03	1.000	100.0	3114 B	07/07/95	WR
Ni	SPIKE	0.94	<0.025	1.000	94.0	3114 B	07/07/95	WR
Pb	SPIKE	1.20	0.28	1.000	92.0	3114 B	07/07/95	WR
Se	SPIKE	0.050	0.029	0.020	105.0	3114 B	07/07/95	WR
Zn	SPIKE	1.84	0.80	1.000	104.0	3114 B	07/07/95	WR

ASARCO Incorporated
Quality Assurance Report Form
Method Blank

Lab ID Number	200-007-95	Well Number	
Project Number		Parameter	TOTAL
Category	SEWER	Date Sampled	07/07/95

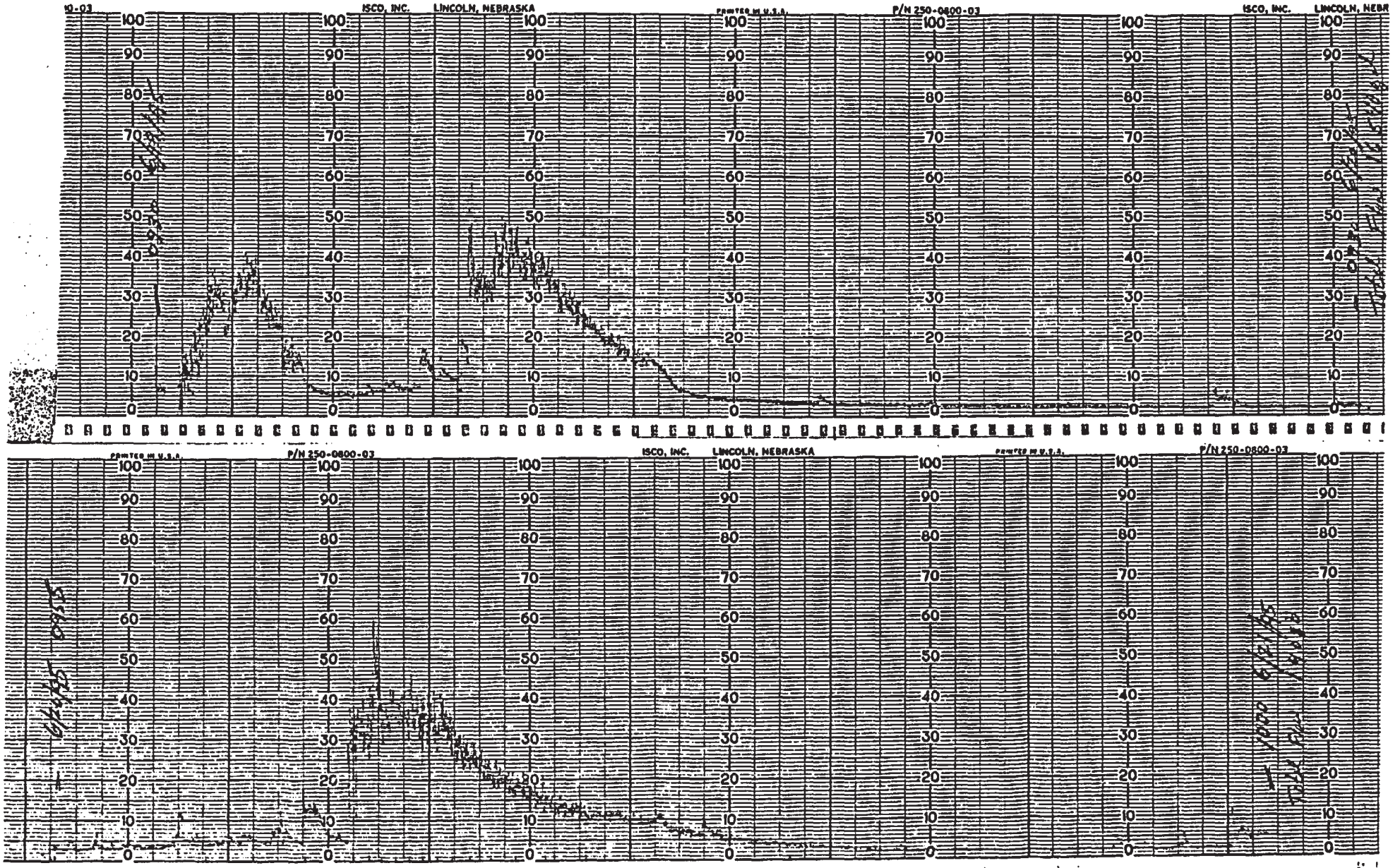
Analyte	Qaqc Type	Analysis	Method Used	Date Analyzed	Analyst
As	BLANK	<0.002	3114 B	07/07/95	WR
Cd	BLANK	<0.01	3114 B	07/07/95	WR
Cu	BLANK	<0.01	3114 B	07/07/95	WR
Ni	BLANK	<0.025	3114 B	07/07/95	WR
Pb	BLANK	<0.05	3114 B	07/07/95	WR
Se	BLANK	<0.002	3114 B	07/07/95	WR
Zn	BLANK	<0.01	3114 B	07/07/95	WR

ASARCO Incorporated
Quality Assurance Report Form
Standard Reference Material

Lab ID Number 200-008-95
Project Number
Category SEWER

Well Number
Parameter TOTAL
Date Sampled 07/07/95

Analyte	Qaqc Type	Analysis	Standard True Value	Standard Recovery	Method Used	Date Analyzed	Analyst
As	STAND	0.090	0.093	96.7	3114 B	07/07/95	WR
Cd	STAND	0.11	0.099	111.1	3114 B	07/07/95	WR
Cu	STAND	0.28	0.260	107.6	3114 B	07/07/95	WR
Ni	STAND	0.33	0.357	92.4	3114 B	07/07/95	WR
Pb	STAND	0.27	0.243	111.1	3114 B	07/07/95	WR
Se	STAND	0.142	0.137	103.6	3114 B	07/07/95	WR
Zn	STAND	0.18	0.222	81.0	3114 B	07/07/95	WR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P/N 250-0800-03
ISCO, INC. LINCOLN, NEBRASKA
P/N 250-0800-03

ASARCO

GLOBE PLANT

January 18, 1995 File: 2.45.5.2

Mr. Ted Graber
Metro Wastewater Reclaimation
6450 York Street
Denver, Colorado 80229-7499

Re: Quarterly Sanitary Sewer Self-Monitoring

Dear Mr. Graber,

In accordance with the conditions of our discharge permit issued by the City and County of Denver; Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 01/10/95 1130 - 01/11/95 1130

TOTAL FLOW FOR 24 HR:	6840 gallons
TOTAL VOLUME COLLECTED:	3.1 liters
NUMBER OF SAMPLES:	9

Arsenic (As)	0.003	(ppm)
Cadmium (Cd)	0.13	(ppm)
Copper (Cu)	0.04	(ppm)
Lead (Pb)	0.155	(ppm)
Nickel (Ni)	0.018	(ppm)
Selenium (Se)	<0.002	(ppm)
Zinc (Zn)	1.11	(ppm)

Grab Sample Date/Time: 01/11/95 1130

pH	6.6	(pH)

Flow Data Date/Time: 01/09/95 1130 - 01/10/95 1130

TOTAL FLOW:	2820 gallons
MAX FLOW:	0.26 gallons/sec
AVERAGE FLOW:	0.033 gallons/sec

Margaret Staub
Environmental Operations

ASARCO Incorporated, 495 East 51st Avenue, Denver, Colorado 80216-2098
Phone (303) 296-5900 • FAX (303) 296-0508

PERIODIC COMPLIANCE REPORT

NOTE: Periodic compliance reports (PCRs) are due on or before the last day of the month following the end of the reporting period and must be submitted to the address(es) listed in the "Reporting Requirements for Permittee" section of your wastewater discharge permit. Not all of the sections listed below apply to all permittees. Some permittees may also need to submit information in addition to the items appearing on this checklist. Consult your wastewater discharge permit for your specific reporting requirements.

Reporting period from July 94 to January 95

Date prepared 1/6/95 Phone (303) 296-5704

Prepared by Margaret Stauh

A. FACILITY INFORMATION

Name Asarco Incorporated

Location 495 East 51st Avenue

Denver, CO 80216

Phone 296-5900 Fax 296-0508 Emergency 296-5900

B. FLOW MONITORING

(Flow monitoring information may be required for more than one Monitoring Point. Attach additional sheets as necessary. If no discharge occurred during the reporting period, complete the first line below and go to Section F.)

Flow volumes based on 2 days of actual measurement 7/13-14/94 + 7/15-16/94

Monitoring Point 001 [ ] No discharge

Average daily flow volume 4775 [✓] Measured [ ] Estimated
(gallons per day)

Maximum daily flow volume 7220 [✓] Measured [ ] Estimated
(gallons per day)

Monitoring Point _____ [ ] No discharge or [ ] Not applicable

Average daily flow volume _____ [ ] Measured [ ] Estimated
(gallons per day)

Maximum daily flow volume _____ [ ] Measured [ ] Estimated
(gallons per day)

Note: Daily flow volumes are used, in part, to determine self-monitoring and reporting frequencies. Reported values, especially estimates, must be as accurate as possible.

F. WASTE DISPOSAL

(Attach copies of disposal records for wastes hauled off-site during the reporting period, or provide a summary of waste disposal activities in the space provided below, or indicate "no activity" if no wastes were disposed of during the reporting period.)

[✓] No waste disposal activity occurred during the reporting period

[ ] Disposal record copies attached

Waste Name	Volume	Ship Date	Disposal Company

G. EYEWASH CERTIFICATION STATEMENT

[✓] Not applicable

"Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standards for this facility, I certify that, to the best of my knowledge and belief, there was no eyewash discharge during any compliance monitoring event."

Margaret L. Stab
Signature of Authorized Representative

1/6/95
Date

Margaret Staub
Name (please print or type)

Senior Environmental Engineer
Title (please print or type)

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW COMPOSITE SAMPLING DATA

Sampling Date Started 1/10/95

Sampling time Started 1130

Sampling Date Ended 1/11/95

Sampling Time Ended 1130

Total Flow For 24 hour Period 6840 gallons

Number of Tanks Discharged 1

Number Of Samples Collected 9

Total Volume Collected 3.1 liters

Flow composite sample was collected using an ISCO 3710 sampler and a 2870 Flow Meter.

Total Metals:(ppm)

Arsenic	(As)	0.003	ppm
Cadmium	(Cd)	0.13	ppm
Copper	(Cu)	0.04	ppm
Lead	(Pb)	0.155	ppm
Nickel	(Ni)	0.018	ppm
Selenium	(Se)	<0.002	ppm
Zinc	(Zn)	1.11	ppm
pH		6.6	units

Date pH Grab Sample Taken: 1/11/95

Time pH Grab Sample Taken: 1130

Sampled By: Warren Rolle

Reviewed By: DIL

Date Reviewed: 1-18-95

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW DATA

Sample Date Started 1/9/95

Sample Time Started 1130

Sample Date Ended 1/10/95

Sample Time Ended 1130

Total Flow Over 24 hour Period 2820 gallons

Maximum Flow Rate during That 24 Hours 0.26 gallons/sec

Average Daily Flow Rate 0.033 gallons/sec

Sampling Performed By : Wayne Rhle

Reviewed By: DCL

Date Reviewed : 1-18-95

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 01/18/95 07:58

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AS PPM	CD PPM	CU PPM	NI PPM	PB PPM	SE PPM	ZN PPM	pH	CN-
208-001-95	01/11/95	GLOBE	0.003	0.13	0.043	0.018	0.155	<0.002	1.11	6.60	

EDIT
APPROVED DPL
DATE 1-18-95

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208-001-95 Description: 001

Sample I.D: Date Submitted: 1/10/95 - 1/11/95 1130 - 1750

Parameter	Value	Units	Method	Date Completed	Chemist
pH	6.6	pH	meter	1/11/95	WR
Cd	0.13 (0.12)	ppm	AA	1/16	
Zn	1.11 (0.92)				
Cu	0.043 (0.03)				
Ni	0.018 (<.025)				
Pb	0.155 (0.10)				
As	0.003				
Se	<0.002				

DCL

Approved

ASARCO INCORPORATED
Environmental Laboratory

CHAIN OF CUSTODY RECORD

GLOBE PLANT
495 E. 51ST AVENUE
DENVER, CO 80216

PROJ. NO.	PROJECT NAME
	Dooring Drainage Monitoring

SAMPLERS: *(Signature)* Wayne Pelle

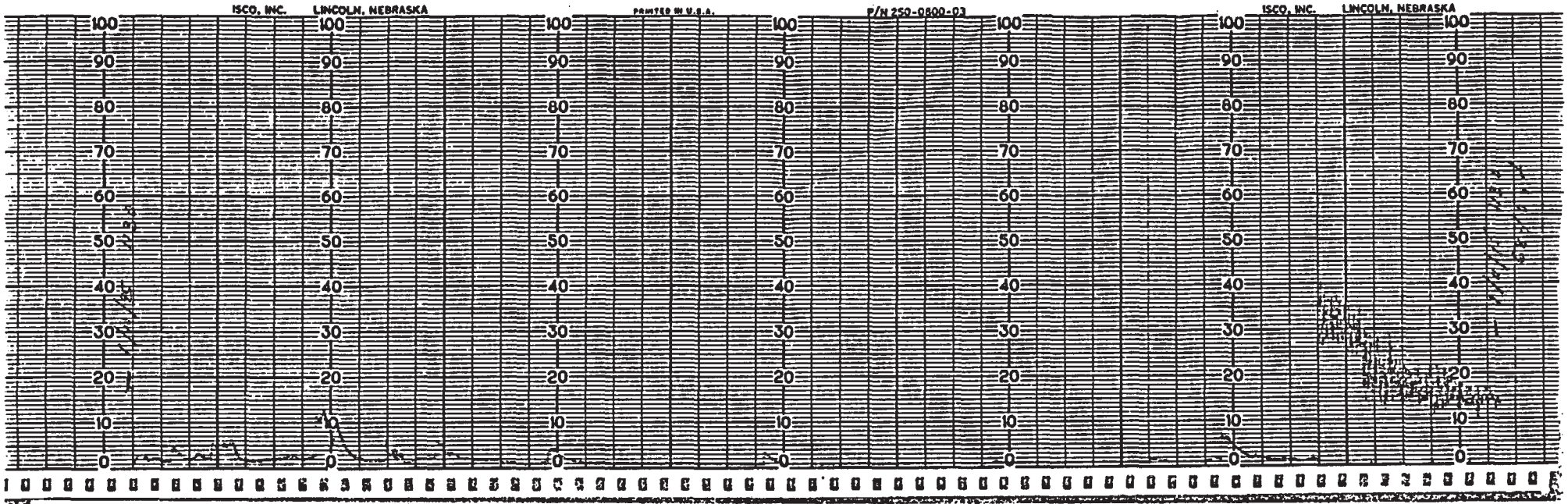
STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Total Dissolved Solids	Total Suspended Solids					REMARKS
	1/10/95	1130		✓	001	1	✓						
	1/10/95	1130	✓		001	1		✓					Lab ID # 208-001-95

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Wayne Pelle	1/11/95 1200	[illegible]			
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	

Distribution: Original Accompanies Shipment; First Copy to Coordinator Field Files; Second Copy to Representative of Inspected Facility

Split Samples:
☐ Accepted ☐ Declined _____ Signature

AG-001025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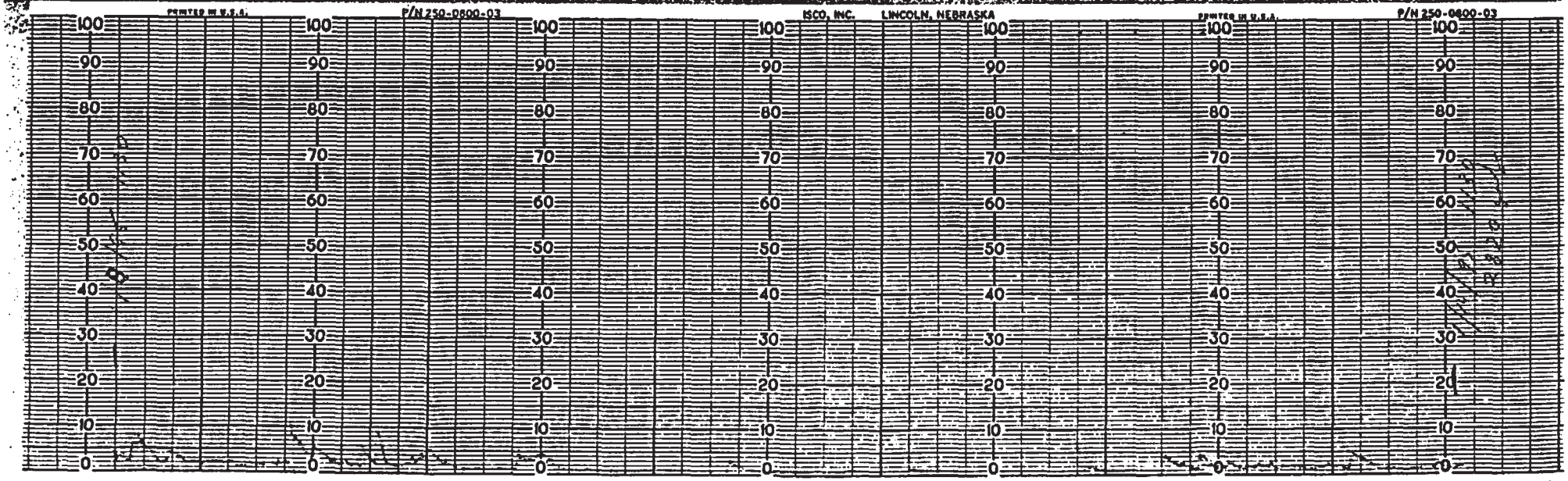
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ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
WATER TREATMENT
Printed: 01/17/95 09:10

SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-232-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 07/01/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.027	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.4	MN:	<0.025	pH:	7.20	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	4	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-243-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.012	CA:		ACC:	X
DATE SAMP: 07/08/94	ZN:	0.01	NI:	<0.025	CR:	<0.05	SE:	0.011	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	<0.025	pH:	6.80	MG:		SO4:		APP:	X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-244-94	TL:	<0.1	PB:	0.08	AG:	<0.01	AS:	0.002	CA:		ACC:	X
DATE SAMP: 07/08/94	ZN:	0.03	NI:	<0.025	CR:	<0.05	SE:	0.011	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.6	MN:	<0.025	pH:	7.30	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-245-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.012	CA:		ACC:	X
DATE SAMP: 07/11/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.040	NA:		REJ:	
SAMPLE ID: DAILY	FE:	2.8	MN:	<0.025	pH:	5.80	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-260-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.005	CA:		ACC:	X
DATE SAMP: 07/12/94	ZN:	0.13	NI:	<0.025	CR:	<0.05	SE:	0.009	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	0.6	MN:	0.21	pH:	6.60	MG:		SO4:		APP:	X
11 TANK-BATCH 13	CD:	0.01	CU:	0.02	S-2:	1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-261-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.008	CA:		ACC:	X
DATE SAMP: 07/13/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.013	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.5	MN:	0.03	pH:	7.30	MG:		SO4:		APP:	X
12 TANK-	CD:	0.02	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-272-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.023	CA:		ACC:	X
DATE SAMP: 07/19/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.003	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.0	MN:	<0.025	pH:	8.90	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-273-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.005	CA:		ACC:	X
DATE SAMP: 07/20/94	ZN:	0.10	NI:	<0.025	CR:	<0.05	SE:	0.002	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	1.0	MN:	0.15	pH:	6.90	MG:		SO4:		APP:	X
11 TANK-BATCH 15	CD:	0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-274-94	TL:	<0.1	PB:	0.18	AG:	<0.01	AS:	0.002	CA:		ACC:	X
DATE SAMP: 07/20/94	ZN:	0.03	NI:	<0.025	CR:	<0.05	SE:	0.002	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.9	MN:	<0.025	pH:	6.90	MG:		SO4:		APP:	X
12 TANK-	CD:	0.02	CU:	<0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:									AL:			

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SAMPLE DESCRIPTION	PPM	PPM	PPM	PPM	PPM	
LAB ID NO: 205-275-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: <0.002	CA:	ACC: X
DATE SAMP: 07/25/94	ZN: <0.01	NI: <0.025	CR: <0.05	SE: 0.015	NA:	REJ:
SAMPLE ID: DAILY	FE: <0.1	MN: <0.025	pH: 7.50	MG:	SO4:	APP: X
12 TANK-	CD: 0.02	CU: <0.01	S-2: 4	CL:	HARDNESS:	
VOLUME:					AL:	
LAB ID NO: 205-277-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: 0.004	CA:	ACC: X
DATE SAMP: 07/25/94	ZN: 0.01	NI: <0.025	CR: <0.05	SE: 0.003	NA:	REJ:
SAMPLE ID: HARRISON STUDY	FE: <0.1	MN: <0.025	pH: 7.10	MG:	SO4:	APP: X
11 TANK-	CD: 0.02	CU: <0.01	S-2: 1	CL:	HARDNESS:	
VOLUME:					AL:	
LAB ID NO: 205-278-94	TL: <0.1	PB: 0.09	AG: <0.01	AS: 0.014	CA:	ACC: X
DATE SAMP: 07/26/94	ZN: <0.01	NI: <0.025	CR: <0.05	SE: 0.011	NA:	REJ:
SAMPLE ID: DAILY	FE: 0.9	MN: <0.025	pH: 6.90	MG:	SO4:	APP: X
12 TANK-	CD: 0.05	CU: 0.02	S-2: 3	CL:	HARDNESS:	
VOLUME:					AL:	
LAB ID NO: 205-279-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: 0.006	CA:	ACC: X
DATE SAMP: 07/29/94	ZN: <0.01	NI: <0.025	CR: <0.05	SE: 0.009	NA:	REJ:
SAMPLE ID: DAILY	FE: 0.9	MN: 0.04	pH: 7.50	MG:	SO4:	APP: X
12 TANK-	CD: 0.02	CU: <0.01	S-2: 6	CL:	HARDNESS:	
VOLUME:					AL:	
LAB ID NO: 205-282-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: <0.002	CA:	ACC: X
DATE SAMP: 08/01/94	ZN: 0.04	NI: <0.025	CR: <0.05	SE: 0.005	NA:	REJ:
SAMPLE ID: HARRISON STUDY	FE: 0.6	MN: <0.025	pH: 7.20	MG:	SO4:	APP: X
11 TANK-	CD: 0.01	CU: <0.01	S-2: 5	CL:	HARDNESS:	
VOLUME:					AL:	
LAB ID NO: 205-283-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: <0.002	CA:	ACC: X
DATE SAMP: 08/01/94	ZN: 0.16	NI: <0.025	CR: <0.05	SE: 0.035	NA:	REJ:
SAMPLE ID: DAILY	FE: <0.1	MN: 0.10	pH: 7.30	MG:	SO4:	APP: X
12 TANK-	CD: 0.03	CU: <0.01	S-2: 3	CL:	HARDNESS:	
VOLUME:					AL:	
LAB ID NO: 205-284-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: 0.004	CA:	ACC: X
DATE SAMP: 08/03/94	ZN: 0.12	NI: <0.025	CR: <0.05	SE: 0.011	NA:	REJ:
SAMPLE ID: DAILY	FE: 0.8	MN: 0.03	pH: 6.80	MG:	SO4:	APP: X
12 TANK-	CD: 0.01	CU: 0.01	S-2: 5	CL:	HARDNESS:	
VOLUME:					AL:	
LAB ID NO: 205-295-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: 0.023	CA:	ACC: X
DATE SAMP: 08/08/94	ZN: 0.09	NI: <0.025	CR: <0.05	SE: 0.011	NA:	REJ:
SAMPLE ID: DAILY	FE: 0.9	MN: <0.025	pH: 6.70	MG:	SO4:	APP: X
12 TANK-	CD: <0.01	CU: 0.01	S-2: 6	CL:	HARDNESS:	
VOLUME:					AL:	
LAB ID NO: 205-296-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: 0.002	CA:	ACC: X
DATE SAMP: 08/09/94	ZN: 0.10	NI: <0.025	CR: <0.05	SE: 0.014	NA:	REJ:
SAMPLE ID: HARRISON STUDY	FE: 0.1	MN: 0.13	pH: 7.40	MG:	SO4:	APP: X
11 TANK-	CD: 0.01	CU: 0.01	S-2: 5	CL:	HARDNESS:	
VOLUME:					AL:	

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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-297-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 08/09/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.5	MN:	<0.025	pH:	7.80	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	6	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-304-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 08/17/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.002	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	0.1	MN:	0.07	pH:	7.60	MG:		SO4:		APP:	X
11 TANK-BATCH 22	CD:	<0.01	CU:	<0.01	S-2:	8	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-305-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 08/17/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.011	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.5	MN:	0.04	pH:	7.00	MG:		SO4:		APP:	X
12 TANK-BATCH 22	CD:	<0.01	CU:	<0.01	S-2:	7	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-311-94	TL:	<0.1	PB:	0.08	AG:	<0.01	AS:	0.005	CA:		ACC:	X
DATE SAMP: 08/22/94	ZN:	1.07	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.37	pH:	7.40	MG:		SO4:		APP:	X
11 TANK-BATCH 23	CD:	0.06	CU:	<0.01	S-2:	5	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-312-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 08/22/94	ZN:	0.01	NI:	<0.025	CR:	<0.05	SE:	0.013	NA:		REJ:	
SAMPLE ID: DAILY	FE:	<0.1	MN:	0.03	pH:	7.00	MG:		SO4:		APP:	X
12 TANK-BATCH 23	CD:	<0.01	CU:	<0.01	S-2:	4	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-317-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 08/29/94	ZN:	1.39	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	0.1	MN:	0.35	pH:	7.60	MG:		SO4:		APP:	X
11 TANK-	CD:	0.12	CU:	<0.01	S-2:	4	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-318-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 08/29/94	ZN:	0.09	NI:	<0.025	CR:	<0.05	SE:	0.009	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.2	MN:	<0.025	pH:	7.20	MG:		SO4:		APP:	X
12 TANK-	CD:	0.04	CU:	<0.01	S-2:	4	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-321-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.006	CA:		ACC:	X
DATE SAMP: 09/01/94	ZN:	1.35	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.24	pH:	7.80	MG:		SO4:		APP:	X
11 TANK-	CD:	0.10	CU:	<0.01	S-2:	1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-322-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 09/07/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.028	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.6	MN:	<0.025	pH:	7.20	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:									AL:			

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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-323-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.006	CA:		ACC:	X
DATE SAMP: 09/01/94	ZN:	0.01	NI:	<0.025	CR:	<0.05	SE:	0.009	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.7	MN:	<0.025	pH:	6.90	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-338-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 09/07/94	ZN:	0.51	NI:	<0.025	CR:	<0.05	SE:	0.016	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.24	pH:	7.50	MG:		SO4:		APP:	X
11 TANK-	CD:	0.05	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-349-94	TL:	<0.1	PB:	0.17	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 09/12/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.010	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.8	MN:	<0.025	pH:	6.40	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	5	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-350-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.003	CA:		ACC:	X
DATE SAMP: 09/14/94	ZN:	0.06	NI:	<0.025	CR:	<0.05	SE:	0.012	NA:		REJ:	
SAMPLE ID: DAILY	FE:	2.1	MN:	<0.025	pH:	6.60	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	0.01	S-2:	8	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-351-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.003	CA:		ACC:	X
DATE SAMP: 09/15/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.002	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.1	MN:	<0.025	pH:	7.60	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	9	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-357-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 09/21/94	ZN:	1.48	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.41	pH:	7.60	MG:		SO4:		APP:	X
11 TANK-BATCH 32	CD:	0.13	CU:	0.02	S-2:	4	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-358-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 09/21/94	ZN:	0.05	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.9	MN:	0.04	pH:	7.20	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	0.03	S-2:	3	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-359-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 09/22/94	ZN:	0.05	NI:	<0.025	CR:	<0.05	SE:	0.006	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.4	MN:	<0.025	pH:	7.10	MG:		SO4:		APP:	X
12 TANK-	CD:	0.02	CU:	0.02	S-2:	4	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-360-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.002	CA:		ACC:	X
DATE SAMP: 09/26/94	ZN:	0.44	NI:	<0.025	CR:	<0.05	SE:	0.003	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.4	MN:	0.04	pH:	7.10	MG:		SO4:		APP:	X
11 TANK-	CD:	0.03	CU:	<0.01	S-2:	7	CL:		HARDNESS:			
VOLUME:									AL:			

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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-361-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 09/28/94	ZN:	0.04	NI:	<0.025	CR:	<0.05	SE:	0.004	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.8	MN:	0.04	pH:	7.00	MG:		SO4:		APP:	X
11 TANK-	CD:	0.12	CU:	0.02	S-2:	4	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-362-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.002	CA:		ACC:	X
DATE SAMP: 09/29/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.007	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.5	MN:	<0.025	pH:	7.20	MG:		SO4:		APP:	X
11 TANK-	CD:	0.01	CU:	0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-370-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.010	CA:		ACC:	X
DATE SAMP: 10/04/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: DAILY	FE:	2.2	MN:	<0.025	pH:	7.30	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	4	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-371-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.002	CA:		ACC:	X
DATE SAMP: 10/05/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.009	NA:		REJ:	
SAMPLE ID: DAILY	FE:	2.3	MN:	<0.025	pH:	6.60	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-377-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 10/06/94	ZN:	0.97	NI:	<0.025	CR:	<0.05	SE:	0.004	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	0.2	MN:	0.25	pH:	7.80	MG:		SO4:		APP:	X
11 TANK-BATCH 34	CD:	0.10	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-378-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.011	CA:		ACC:	X
DATE SAMP: 10/06/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.015	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.6	MN:	<0.025	pH:	7.30	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-379-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.005	CA:		ACC:	X
DATE SAMP: 10/11/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.012	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.4	MN:	<0.025	pH:	6.80	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	0.01	S-2:	4	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-380-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.005	CA:		ACC:	X
DATE SAMP: 10/12/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.017	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.7	MN:	<0.025	pH:	7.80	MG:		SO4:		APP:	X
12 TANK-	CD:	0.02	CU:	<0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-381-94	TL:	0.1	PB:	<0.05	AG:	<0.01	AS:	0.009	CA:		ACC:	X
DATE SAMP: 10/13/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.011	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.6	MN:	<0.025	pH:	7.10	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:									AL:			

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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-382-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.017	CA:		ACC:	X
DATE SAMP: 10/14/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.012	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.1	MN:	<0.025	pH:	6.70	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-383-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 10/18/94	ZN:	0.04	NI:	<0.025	CR:	<0.05	SE:	0.005	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.2	MN:	<0.025	pH:	5.60	MG:		SO4:		APP:	X
12 TANK-	CD:	0.03	CU:	0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-389-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.012	CA:		ACC:	X
DATE SAMP: 10/24/94	ZN:	0.87	NI:	<0.025	CR:	<0.05	SE:	0.003	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	0.1	MN:	0.39	pH:	8.10	MG:		SO4:		APP:	X
11 TANK-	CD:	0.05	CU:	0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-390-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 10/24/94	ZN:	0.04	NI:	<0.025	CR:	<0.05	SE:	0.003	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.9	MN:	<0.025	pH:	7.90	MG:		SO4:		APP:	X
12 TANK-	CD:	0.02	CU:	0.02	S-2:	1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-396-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 10/25/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.1	MN:	<0.025	pH:	7.20	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-397-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.005	CA:		ACC:	X
DATE SAMP: 10/31/94	ZN:	0.04	NI:	<0.025	CR:	<0.05	SE:	0.007	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.5	MN:	0.05	pH:	6.60	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-403-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 10/31/94	ZN:	1.04	NI:	<0.025	CR:	<0.05	SE:	0.005	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.32	pH:	7.00	MG:		SO4:		APP:	X
11 TANK-	CD:	0.06	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-406-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.003	CA:		ACC:	X
DATE SAMP: 11/02/94	ZN:	0.01	NI:	<0.025	CR:	<0.05	SE:	0.002	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.1	MN:	<0.025	pH:	6.70	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-412-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 11/01/94	ZN:	1.43	NI:	<0.025	CR:	<0.05	SE:	0.004	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.39	pH:	7.60	MG:		SO4:		APP:	X
11 TANK-BATCH 38	CD:	0.10	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			

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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-413-94	TL:	<0.1	PB:	0.15	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 11/02/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.004	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.0	MN:	0.03	pH:	7.50	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-419-94	TL:	<0.1	PB:	0.05	AG:	<0.01	AS:	0.006	CA:		ACC:	X
DATE SAMP: 11/04/94	ZN:	0.80	NI:	<0.025	CR:	<0.05	SE:	0.013	NA:		REJ:	
SAMPLE ID: DAILY	FE:	2.6	MN:	0.05	pH:	7.20	MG:		SO4:		APP:	X
11 TANK-	CD:	0.08	CU:	<0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-420-94	TL:	<0.1	PB:	0.05	AG:	<0.01	AS:	0.002	CA:		ACC:	X
DATE SAMP: 11/04/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.010	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.3	MN:	<0.025	pH:	7.30	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-421-94	TL:	<0.1	PB:	0.15	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 11/07/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.003	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.8	MN:	<0.025	pH:	6.80	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-427-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.002	CA:		ACC:	X
DATE SAMP: 11/15/94	ZN:	1.20	NI:	<0.025	CR:	<0.05	SE:	0.007	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	0.1	MN:	0.29	pH:	8.10	MG:		SO4:		APP:	X
11 TANK-	CD:	0.11	CU:	0.02	S-2:	2	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-438-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 11/16/94	ZN:	1.67	NI:	<0.025	CR:	<0.05	SE:	0.009	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	0.1	MN:	0.36	pH:	6.20	MG:		SO4:		APP:	X
12 TANK-BATCH 42 & 43	CD:	0.12	CU:	0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-439-94	TL:	<0.1	PB:	0.15	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 11/22/94	ZN:	0.08	NI:	<0.025	CR:	<0.05	SE:	0.007	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.3	MN:	0.05	pH:	7.20	MG:		SO4:		APP:	X
12 TANK-	CD:	0.02	CU:	0.02	S-2:	5	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-450-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.002	CA:		ACC:	X
DATE SAMP: 11/28/94	ZN:	0.01	NI:	<0.025	CR:	<0.05	SE:	0.003	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.45	pH:	7.20	MG:		SO4:		APP:	X
11 TANK-BATCH 44 & 45	CD:	0.16	CU:	0.01	S-2:	4	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-451-94	TL:	<0.1	PB:	0.14	AG:	<0.01	AS:	0.005	CA:		ACC:	X
DATE SAMP: 11/28/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.010	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.2	MN:	<0.025	pH:	7.20	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	0.02	S-2:	4	CL:		HARDNESS:			
VOLUME:									AL:			

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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-457-94	TL:	<0.1	PB:	0.13	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 11/29/94	ZN:	0.01	NI:	0.04	CR:	<0.05	SE:	0.005	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.1	MN:	0.03	pH:	7.30	MG:		SO4:		APP:	X
12 TANK-BATCH 46	CD:	0.01	CU:	0.02	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-460-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.007	CA:		ACC:	X
DATE SAMP: 12/01/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.003	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.4	MN:	<0.025	pH:	7.00	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	0.02	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-466-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 12/02/94	ZN:	1.61	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.22	pH:	7.10	MG:		SO4:		APP:	X
11 TANK-	CD:	0.09	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-472-94	TL:	<0.1	PB:	0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 12/06/94	ZN:	0.13	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.2	MN:	<0.025	pH:	7.20	MG:		SO4:		APP:	X
12 TANK-	CD:	0.02	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-478-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 12/07/94	ZN:	2.85	NI:	<0.025	CR:	<0.05	SE:	0.003	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.44	pH:	6.50	MG:		SO4:		APP:	X
11 TANK-BATCH 49	CD:	0.19	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-479-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.021	CA:		ACC:	X
DATE SAMP: 12/07/94	ZN:	0.33	NI:	<0.025	CR:	<0.05	SE:	0.018	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.3	MN:	0.07	pH:	6.60	MG:		SO4:		APP:	X
12 TANK-	CD:	0.02	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-480-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.007	CA:		ACC:	X
DATE SAMP: 12/08/94	ZN:	0.06	NI:	<0.025	CR:	<0.05	SE:	0.011	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.7	MN:	<0.025	pH:	6.80	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-486-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.002	CA:		ACC:	X
DATE SAMP: 12/09/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.9	MN:	0.05	pH:	6.80	MG:		SO4:		APP:	X
12 TANK-	CD:	0.03	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-492-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 12/12/94	ZN:	3.95	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.51	pH:	7.20	MG:		SO4:		APP:	X
11 TANK-BATCH 51	CD:	0.20	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			

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WATER TREATMENT
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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-493-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 12/12/94	ZN:	0.05	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.2	MN:	0.03	pH:	7.40	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-499-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 12/13/94	ZN:	0.18	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.6	MN:	<0.025	pH:	8.00	MG:		SO4:		APP:	X
12 TANK-	CD:	0.02	CU:	0.02	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-500-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 12/15/94	ZN:	3.32	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.37	pH:	5.60	MG:		SO4:		APP:	X
11 TANK-BATCH 53	CD:	0.16	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-501-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 12/15/94	ZN:	0.10	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.3	MN:	<0.025	pH:	7.20	MG:		SO4:		APP:	X
12 TANK-	CD:	0.02	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-512-94	TL:	<0.1	PB:	0.11	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 12/19/94	ZN:	0.08	NI:	<0.025	CR:	<0.05	SE:	0.006	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.4	MN:	0.03	pH:	7.20	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-513-94	TL:	<0.1	PB:	0.22	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 12/20/94	ZN:	0.06	NI:	<0.025	CR:	<0.05	SE:	0.011	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.4	MN:	<0.025	pH:	7.30	MG:		SO4:		APP:	X
12 TANK-	CD:	0.02	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-514-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.002	CA:		ACC:	X
DATE SAMP: 12/21/94	ZN:	2.82	NI:	<0.025	CR:	<0.05	SE:	0.013	NA:		REJ:	
SAMPLE ID: DAILY	FE:	<0.1	MN:	0.35	pH:	5.90	MG:		SO4:		APP:	X
11 TANK-	CD:	0.16	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-515-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.010	CA:		ACC:	X
DATE SAMP: 12/27/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.012	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.3	MN:	<0.025	pH:	7.00	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:									AL:			
LAB ID NO: 205-521-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 12/28/94	ZN:	0.04	NI:	<0.025	CR:	<0.05	SE:	0.010	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.4	MN:	<0.025	pH:	8.10	MG:		SO4:		APP:	X
12 TANK-	CD:	0.02	CU:	<0.01	S-2:	4	CL:		HARDNESS:			
VOLUME:									AL:			

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
WATER TREATMENT
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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-522-94	TL:	<0.1	PB:	0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 12/29/94	ZN:	0.04	NI:	<0.025	CR:	<0.05	SE:	0.006	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.4	MN:	<0.025	pH:	8.30	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	4	CL:		HARDNESS:			
VOLUME:									AL:			

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 01/17/95 08:46

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AS PPM	CD PPM	CU PPM	NI PPM	PB PPM	SE PPM	ZN PPM	pH	CN-
209-001-94	07/01/94	METRO									0.003
209-002-94	07/01/94	METRO	0.014	0.03	<0.01	<0.025	<0.05	0.018	0.24		
208-005-94	07/14/94	GLOBE	0.005	0.02	<0.01	0.07	<0.05	0.018	0.06		
208-006-94	07/14/94	GLOBE								7.20	0.004
209-003-94	10/03/94	METRO	<0.002	0.04	0.01	<0.025	<0.05	0.006	0.13		
209-004-94	10/04/94	METRO	<0.002	<0.01	<0.01	<0.025	<0.05	0.005	0.07		
209-005-94	10/05/94	METRO	<0.002	<0.01	<0.01	<0.025	<0.05	0.004	0.02		

Dec. 1994

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
WR	12/1	12	1600	70	140483		6994
WR	12/2	11	1620	11	2751280		7910
WR	12/6	12	1610	70	148831		~~6999~~ 6994
WR	12/7	11	1530	70	2759190		7154
		12		70	0155825		7701
WR	12/8	12	1520	70	163526		~~7701~~ 688
WR	12/9	12	1620	70	170415		~~6889~~ 77
WR	12/12	11	1622	70	2786344		7310
		12	1622	70	178170		~~7755~~ 75
WR	12/13	12	1530	70	185675		~~7505~~ 764
WR	12/6	11	1555	70	2773654		6304
		12		70	193320		~~7645~~ 678
WR	12/19	12	1538	70	200103		~~6783~~ 80
WR	12/20	12	1412	76	208188		~~8085~~ 723
DL	12/21	11	1355	70	~~2779958~~		
DL	12/27	12	1517	70	215468		~~7280~~ 715
DL	12/28	12	1656	70	222626		~~7158~~ 756
DL	12/29	12	1517	70	230188		~~7561~~ 703
						2786262	
						~~2779958~~	
				5	#11	2751280	
						~~34078~~	
						34,982	13171
						~~237223~~	
				13	#12	140483	gals
						96739	

Nov. 1994

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
DL	11/2	12	1450	70	79810		7233
DL	11/2	12	1540	70	87043		7592
DL	↓	11	↓	70	2722733		7482
DL	11/4	12	1546	70	94635		6776
	↓	11.	↓	↓	2730215		7346
DL	11/7	12	1445	70	101411		7098
WR	11/16	11	0745	70	2731561		7429
WR	11/16	12	1630	70	108509		8031
WR	11/22	12	1615	70	116540		7547
WR	11/28	11.	1615	70	2744990		6290
	↓	12	↓	70	124087		8253
WR	11/29	12	1600	70	132340		8143
WR	~~12/1/94~~	~~12~~	~~1600~~	~~70~~	140483 ✓	END	
WR	~~12/2/94~~	~~11~~	~~1630~~	~~70~~	2751280 ✓	↓	
					(8) 12	140483	
						79810	
						60673 gals	
					(4) 11	2751280	
						2722733	
						28547	
						89,220	

Oct. 1994

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
WR	10/4/94	12	1520	70	000000		7124
WR	10/5/94	12	1523	70	0007124		7197
WR	10/6/94	11	1530	70	276524		5850
		12		70	14321		7135
WR	10/11/94	12	1515	70	21453		6101
WR	10/12/94	12	1500	70	27554		7472
WR	10/13/94	12	1535	70	35026		7533
WR	10/14/94	12	1423	70	42559		7296
WR	10/18/94	12	1545	70	49855		7281
WR	10/24/94	11	1540	70	2712374		4162
		12		70	57136		7905
WR	10/25/94	12	1525	70	65041		7309
DL	10/31	12	1445	70	72350		7460
		11			2716536		6195
				3	16207	(11) 2722731	
				11	79800	(12) 79810	
					96,807 gale		

Sept. 1994

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume	
2d	9/1	11	1505	70	2660857		11913	
1	1	12	1	1	3246535		3727	
2d	9/7	11	1628	70	2672770		7193	
1	1	12	1	1	3250262	~~3227~~	6674	
WR	9/12	12	1537	70	3256936		5968	
WR	9/14	12	1505	70	3262914			*
WR	9/15	12	1523	70	3262915*			*
WR	9/21	11	1607	70	2679963		6360	
	1	12	1607	1	3262919*			*
WR	9/22	12	1530	70	3262919*			*
WR	9/26	11	1430	70	2686323		7387	
WR	9/28	11	1345	70	2693710		6123	
WR	9/29	11	1420	70	2699833		6689	
						3246535		
						12 3262919		
					7 Tks @ 7611	~~3246535~~ ~~16384~~	53277 (estimate)	
						12 2706522		
						~~2666857~~ ~~45665~~		
							98,942	

August, 1994

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
WR	8/1/94	11	1510	70	2624505		8275
↓	↓	12	1510	70	3154303		7550
WR	8/3/94	12	1523	70	3191853		6292
WR	8/8/94	12	1025	70	3198145		10490
WR	8/9/94	11	1430	70	2632750		7852
↓	↓	12	↓	70	3208635		8835
WR	8/17	11	1530	70	2640632		6408
↓	↓	12	↓	70	3217470		10048
WR	8/22	11	1030	70	2647040		7435
↓	↓	12	↓	↓	3227518		967
WR	8/29	11	1400	70	2654475	11 - 2660857	638
↓	↓	12	1400	70	3237190	12 - 3246535	934
						#11 36,352	gals
						#12 62,232	
						98,584	

July, 177

WASTE WATER TREATMENT FLOW METER REPORT

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
WR	7/1	12	1515	70	3115750		7787
WR	7/8	11	1345	70	2598975		7170
	7/8	12		70	3123537		7803
	7/4	12	1550	70	3131340		6775
WR	7/12	11	1600	70	2606145		7264
WR	7/13	12	1445	70	3138115		6115
WR	7/18	12	1530	70	3144230		7875
WR	7/20	11	1500	70	2613409		5436
		12		70	3152105		8392
WR	7/25	12	1115	70	3160497		8275
WR	7/25	11	1505	70	2618845	2624505	5660
WR	7/26	12	1445	70	3168772		7923
WR	7/29	12	1630	70	3176695	3184303	7608
					13 Tks	#11	25,530 gal
						#12	68,553
							94,083 gal

PERIODIC COMPLIANCE REPORT

NOTE: Periodic compliance reports (PCRs) are due on or before the last day of the month following the end of the reporting period and must be submitted to the address(es) listed in the "Reporting Requirements for Permittee" section of your wastewater discharge permit. Not all of the sections listed below apply to all permittees. Some permittees may also need to submit information in addition to the items appearing on this checklist. Consult your wastewater discharge permit for your specific reporting requirements.

Reporting period from January, 1994 to July, 1994

Date prepared 7/15/94 Phone (303) 296-5900

Prepared by Margaret Staub

A. FACILITY INFORMATION

Name Asarco Inc.

Location 495 E. 51st Ave

Denver, CO 80216

Phone 296-5900 Fax 296-0508 Emergency 888-2122

B. FLOW MONITORING

(Flow monitoring information may be required for more than one Monitoring Point. Attach additional sheets as necessary. If no discharge occurred during the reporting period, complete the first line below and go to Section F.)

* 4 day of measurement. 1/24/94 1/25/94 3/23/94 + 3/24/94

Monitoring Point 001 [ ] No discharge

Average daily flow volume 8765 [✓] Measured [ ] Estimated
(gallons per day)

Maximum daily flow volume ~~0.64~~ 9380 [✓] Measured [ ] Estimated
(gallons per day)

Monitoring Point _____ [ ] No discharge or [ ] Not applicable

Average daily flow volume _____ [ ] Measured [ ] Estimated
(gallons per day)

Maximum daily flow volume _____ [ ] Measured [ ] Estimated
(gallons per day)

Note: Daily flow volumes are used, in part, to determine self-monitoring and reporting frequencies. Reported values, especially estimates, must be as accurate as possible.

C. BATCH DISCHARGES

(Section B may also need to be completed by most batch dischargers. If no discharge occurred during the reporting period, complete the first line below and go to Section F.)

Monitoring Point Effluent Holding Tanks [ ] No discharge or [ ] Not applicable

Number of batch discharges 114 [✓] Batch discharge log attached

Average volume of batch discharges 7731 ~~(gallons per day)~~

Maximum volume of batch discharges 16313 (gallons per day)

Number of days batch discharges ~~114~~ 81

D. PRODUCTION INFORMATION

[X] Not applicable

[ ] Production data attached

E. SAMPLING RESULTS

Attach copies of the analytical results of all samplings of the regulated wastestreams performed by the permittee during the reporting period. Attach copies of the analytical results of all split samplings of the regulated wastestream performed by the permittee or other agency during the reporting period. Results transmitted to the permittee by any other agency, including the Metro District, do not have to be submitted, but must be kept on file for at least 3 years and be available for inspection.

Analytical results submitted with this PCR must contain the following information:

1. Concentrations and measurements of all parameters for which there are self-monitoring requirements.

2. The date, time and location of all sampling activities. Include the start-stop dates and times for composite samples.

(Note: To avoid self-monitoring reporting errors or violations, the analytical results included in this PCR should also contain the information listed below for all samples. At a minimum, this information must be kept on file for at least 3 years and be available for inspection.)

3. The method of sampling (grab, time composite, flow composite, or continuous measurement) and name of the person collecting the sample.

4. The name of the laboratory (or person) that performed the analyses.

5. The date the analyses were performed.

6. The analytical techniques/methods used for the analyses.

F. WASTE DISPOSAL

(Attach copies of disposal records for wastes hauled off-site during the reporting period, or provide a summary of waste disposal activities in the space provided below, or indicate "no activity" if no wastes were disposed of during the reporting period.)

[ ] No waste disposal activity occurred during the reporting period

[ ] Disposal record copies attached

Waste Name	Volume	Ship Date	Disposal Company
* Sodium Iodide	1800 gallons	5/18/94	USPCI

* This is not a waste typically generated at the Globe Plant. This was spent reagent determined no longer useful.

G. EYEWASH CERTIFICATION STATEMENT

[X] Not applicable

"Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standards for this facility, I certify that, to the best of my knowledge and belief, there was no eyewash discharge during any compliance monitoring event."

Margaret L. Stauh
Signature of Authorized Representative

7/15/94
Date

Margaret Stauh
Name (please print or type)

Environmental Engineer
Title (please print or type)

H. CERTIFICATION STATEMENT FOR TOTAL TOXIC ORGANICS

☒ Not applicable

"Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation for Total Toxic Organics, I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to the control authority."

Margaret W. Staub
Signature of Authorized Representative

7/15/94
Date

Margaret W. Staub
Name (please print or type)

Environmental Engineer
Title (please print or type)

I. ACCURACY AND COMPLETENESS CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. I further certify that there are no significant and/or regulated industrial process operations being conducted at this facility which discharge wastewater to the POTW and which are not covered by this report. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Margaret W. Staub
Signature of Authorized Representative

7/15/94
Date

Margaret W. Staub
Name (please print or type)

Environmental Engineer
Title (please print or type)

July 26, 1994 File: 2.45.5.2

ASARCO Globe Plant
495 East 51 Ave.
Denver Colorado 80216
296-5900

Mr. Bill Morgan
Metro Wastewater Reclaimation
6450 York Street
Denver, Colorado 80229-7499

Re: Bi-annual Sanitary Sewer Self-Monitoring

Dear Mr. Bill Morgan,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 07/13/94 0745 - 07/14/94 0745

TOTAL FLOW FOR 24 HR:	7220 gallons
TOTAL VOLUME COLLECTED:	2.6 liters
NUMBER OF SAMPLES:	10

Arsenic (As)	0.005	(ppm)
Cadmium (Cd)	0.02	(ppm)
Copper (Cu)	<0.01	(ppm)
Lead (Pb)	<0.05	(ppm)
Nickel (Ni)	0.07	(ppm)
Selenium (Se)	0.018	(ppm)
Zinc (Zn)	0.06	(ppm)

Grab Sample Date/Time: 07/14/94 0800

Cyanide (CN-)	0.004	(ppm)
pH	7.20	(pH)

Flow Data Date/Time: 07/15/94 0800 - 07/16/94 0800

TOTAL FLOW:	2330 gallons
MAX FLOW:	0.25 gallons/sec
AVERAGE FLOW:	0.027 gallons/sec

Duane M. Yantorno

Duane Yantorno
Operations Manager

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 07/28/94 08:53

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AS PPM	CD PPM	CU PPM	NI PPM	PB PPM	SE PPM	ZN PPM	pH	CN-
208-005-94	07/14/94	GLOBE	0.005	0.02	<0.01	0.07	<0.05	0.018	0.06		
208-006-94	07/14/94	GLOBE								7.20	0.004

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208-005-94 Description: Sewer Comp

Sample I.D: Globe Date Submitted: 7/14/94

Parameter	Value	Units	Method	Date Completed	Chemist
As	.005	ppm	hydride	7/14	LWR
Cd	0.02		AA	7/15	
Cu	<0.01				
Pb	<0.05				
Ni	0.07				
Se	0.018		hydride	7/14	
Zn	0.06		AA	7/15	

Approved

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 208-006-94 Description: Sewer Grab

Sample I.D: Globe Date Submitted: 7/14/94

Parameter	Value	Units	Method	Date Completed	Chemist
pH	7.2	pH	meter	7/14/94	WR
CN^-	4.2	ug/L	Dist	"	"

Approved

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW COMPOSITE SAMPLING DATA

Sampling Date Started 7/13/94

Sampling time Started 0745

Sampling Date Ended 7/14/94

Sampling Time Ended 0745

Total Flow For 24 hour Period 7220 gallons

Number of Tanks Discharged 1

Number Of Samples Collected 10

Total Volume Collected 2.6 liters

Flow composite sample was collected using an ISCO 3710 sampler and a 2870 Flow Meter.

Total Metals:(ppm)

Arsenic	(As)	0.005	ppm
Cadmium	(Cd)	0.02	ppm
Copper	(Cu)	<0.01	ppm
Lead	(Pb)	<0.05	ppm
Nickel	(Ni)	0.07	ppm
Selenium	(Se)	0.018	ppm
Zinc	(Zn)	0.06	ppm
pH		7.2	units

Date pH Grab Sample Taken: 7/14/94

Time pH Grab Sample Taken: 0800

pH 7.2

CN^- 0.004 mg/l

Sampled By: Warren Rolle

Reviewed By: Duane M Upton

Date Reviewed: 7/28/94

ASARCO INC.

GLOBE PLANT (303)-296-5900 DENVER COLORADO

SANITARY SEWER MONITORING
DISCHARGE PERMIT COMPLIANCE

MONITORING POINT 001:

FLOW DATA

Sample Date Started 7/15/94

Sample Time Started 0800

Sample Date Ended 7/16/94

Sample Time Ended 0800

Total Flow Over 24 hour Period 2330 gallons

Maximum Flow Rate during That 24 Hours 0.25 gallons/sec

Average Daily Flow Rate 0.027 gallons/sec

Sampling Performed By : Warren Robb

Reviewed By: Duane McLeod

Date Reviewed : 7/28/94

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 07/28/94 08:52

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AS PPM	CD PPM	CU PPM	NI PPM	PB PPM	SE PPM	ZN PPM	pH	CN-
208-001-94	01/25/94	GLOBE								6.95	0.0027
208-002-94	01/25/94	GLOBE		0.04	<0.01	<0.025	<0.05		0.10		
208-003-94	03/24/94	GLOBE	0.007	0.03	0.01	<0.025	<0.05	0.018	0.11		
208-004-94	03/24/94	GLOBE								7.05	

March 29, 1994 File: 2.45.5.2

ASARCO Globe Plant
495 East 51 Ave.
Denver Colorado 80216
296-5900

Ms. Jill Graham
Metro Wastewater Reclaimation District
Industrial Waste/Pretreatment
6450 York Street
Denver Colorado 80229-7499

Re: Six Month Sanitary Sewer Self-Monitoring

Dear Ms. Graham

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 03/23/94 1345 - 03/24/94 1345

TOTAL FLOW FOR 24 HR:	9380 gallons
TOTAL VOLUME COLLECTED:	5.0 liters
NUMBER OF SAMPLES:	13

Arsenic (As)	0.007	(ppm)
Cadmium (Cd)	0.03	(ppm)
Copper (Cu)	0.01	(ppm)
Lead (Pb)	<0.05	(ppm)
Nickel (Ni)	<0.025	(ppm)
Selenoum (Se)	0.018	(ppm)
Zinc (Zn)	0.11	(ppm)

Grab Sample Date/Time: 03/24/94 1350

pH	7.05	(units)

Flow Data Date/Time: 03/24/94 1345 - 03/25/94 1345

TOTAL FLOW:	9200 gallons
MAX FLOW:	0.60 gallons/sec
AVERAGE FLOW:	0.106 gallons/sec

Taie Li
Unit Manager

January 8, 1994 File: 2.45.5.2

ASARCO Globe Plant
495 East 51 Ave.
Denver Colorado 80216
296-5900

Mr. T. Rodriguez
Denver North Side Treatment
5100 North Marion
Denver Colorado 80216

Re: Bi-monthly Sanitary Sewer Self-Monitoring

Dear Mr. Rodriguez,

In accordance with the conditions of our discharge permit issued by the City and County of Denver, Wastewater Management, we monitored the discharge through manhole 001 on the following dates:

A 24 hour flow composite sample and a grab sample were collected and the following parameters were analyzed:

Flow Composite Sample Date/Time: 01/24/93 0900 - 01/25/93 0900

TOTAL FLOW FOR 24 HR:	7230 gallons
TOTAL VOLUME COLLECTED:	3.4 liters
NUMBER OF SAMPLES:	10

Cadmium (Cd)	0.04	(ppm)
Lead (Pb)	<0.05	(ppm)
Chromium (Cr)	<0.05	(ppm)
Copper (Cu)	<0.01	(ppm)
Nickel (Ni)	<0.025	(ppm)
Zinc (Zn)	0.10	(ppm)
Silver (Ag)	<0.01	(ppm)

Grab Sample Date/Time: 01/25/93 0905

Cyanide (CN-)	0.0027	(ppm)
pH	6.95	(pH)

Flow Data Date/Time: 01/25/93 0900 - 01/26/93 0900

TOTAL FLOW:	9250 gallons
MAX FLOW:	0.64 gallons/sec
AVERAGE FLOW:	0.107 gallons/sec

Taie Li
Unit Manager

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
WATER TREATMENT
Printed: 07/27/94 14:52

SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM	
LAB ID NO: 205-001-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC: X
DATE SAMP: 01/03/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:
SAMPLE ID: DAILY	FE:	1.4	MN:	<0.025	pH:	6.80	MG:		SO4:		APP: X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	4	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-008-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.018	CA:		ACC: X
DATE SAMP: 01/03/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.002	NA:		REJ:
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.05	pH:	6.10	MG:		SO4:		APP: X
11 TANK-BATCH 209	CD:	0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-013-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.005	CA:		ACC: X
DATE SAMP: 01/04/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.5	MN:	<0.025	pH:	7.60	MG:		SO4:		APP: X
11 TANK-BATCH 210	CD:	0.02	CU:	0.02	S-2:	2	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-014-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.013	CA:		ACC: X
DATE SAMP: 01/04/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.007	NA:		REJ:
SAMPLE ID: HARRISON STUDY	FE:	1.2	MN:	<0.025	pH:	7.00	MG:		SO4:		APP: X
12 TANK-BATCH 210	CD:	<0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-015-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.015	CA:		ACC: X
DATE SAMP: 01/05/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.009	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.5	MN:	<0.025	pH:	6.20	MG:		SO4:		APP: X
11 TANK-	CD:	0.01	CU:	0.02	S-2:	<1	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-020-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC: X
DATE SAMP: 01/06/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.014	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.5	MN:	<0.025	pH:	7.00	MG:		SO4:		APP: X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-021-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.045	CA:		ACC: X
DATE SAMP: 01/06/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.005	NA:		REJ:
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.11	pH:	7.20	MG:		SO4:		APP: X
12 TANK-BATCH 212	CD:	0.02	CU:	<0.01	S-2:	<1	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-022-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.013	CA:		ACC: X
DATE SAMP: 01/10/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.004	NA:		REJ:
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	<0.025	pH:	7.00	MG:		SO4:		APP: X
12 TANK-	CD:	0.02	CU:	<0.01	S-2:	<1	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-023-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.002	CA:		ACC: X
DATE SAMP: 01/12/94	ZN:	0.01	NI:	<0.025	CR:	<0.05	SE:	0.003	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.6	MN:	0.03	pH:	6.60	MG:		SO4:		APP: X
11 TANK-	CD:	0.02	CU:	0.03	S-2:	2	CL:		HARDNESS:		
VOLUME:											

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
WATER TREATMENT
Printed: 07/27/94 14:52

SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-024-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 01/13/94	ZN:	0.03	NI:	<0.025	CR:	<0.05	SE:	0.010	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.1	MN:	<0.025	pH:	6.30	MG:		SO4:		APP:	X
11 TANK-	CD:	0.02	CU:	0.01	S-2:	1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-025-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.039	CA:		ACC:	X
DATE SAMP: 01/13/94	ZN:	0.01	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	0.6	MN:	<0.025	pH:	8.40	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-030-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.021	CA:		ACC:	X
DATE SAMP: 01/17/94	ZN:	0.17	NI:	<0.025	CR:	<0.05	SE:	0.006	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.4	MN:	0.03	pH:	6.00	MG:		SO4:		APP:	X
11 TANK-	CD:	0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-031-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.041	CA:		ACC:	X
DATE SAMP: 01/17/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.004	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	<0.025	pH:	6.80	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-036-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.002	CA:		ACC:	X
DATE SAMP: 01/18/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.003	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.4	MN:	<0.025	pH:	7.10	MG:		SO4:		APP:	X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	4	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-037-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.038	CA:		ACC:	X
DATE SAMP: 01/19/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.010	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	<0.025	pH:	9.00	MG:		SO4:		APP:	X
12 TANK-BATCH 218	CD:	<0.01	CU:	0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-038-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.041	CA:		ACC:	X
DATE SAMP: 01/21/94	ZN:	0.01	NI:	<0.025	CR:	<0.05	SE:	0.006	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	<0.025	pH:	9.00	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-039-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.004	CA:		ACC:	X
DATE SAMP: 01/24/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.006	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	1.1	MN:	<0.025	pH:	6.80	MG:		SO4:		APP:	X
11 TANK-	CD:	<0.01	CU:	0.03	S-2:	3	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-040-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.046	CA:		ACC:	X
DATE SAMP: 01/25/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	<0.025	pH:	6.60	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	1	CL:		HARDNESS:			
VOLUME:												

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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-041-94	TL:	0.2	PB:	<0.05	AG:	<0.01	AS:	0.006	CA:		ACC:	X
DATE SAMP: 01/27/94	ZN:	0.05	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.7	MN:	0.04	pH:	7.10	MG:		SO4:		APP:	X
11 TANK-	CD:	0.02	CU:	0.03	S-2:	3	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-042-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.033	CA:		ACC:	X
DATE SAMP: 01/27/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.013	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	0.1	MN:	<0.025	pH:	6.90	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-051-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.004	CA:		ACC:	X
DATE SAMP: 01/31/94	ZN:	0.02	NI:	0.05	CR:	<0.05	SE:	0.020	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.8	MN:	<0.025	pH:	6.90	MG:		SO4:		APP:	X
11 TANK-	CD:	0.01	CU:	0.02	S-2:	3	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-052-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.050	CA:		ACC:	X
DATE SAMP: 01/31/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.010	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.25	pH:	6.70	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-053-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 02/02/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.011	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.3	MN:	<0.025	pH:	6.40	MG:		SO4:		APP:	X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-054-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.041	CA:		ACC:	X
DATE SAMP: 02/02/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.004	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.08	pH:	6.70	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-059-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.006	CA:		ACC:	X
DATE SAMP: 02/03/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.7	MN:	<0.025	pH:	6.50	MG:		SO4:		APP:	X
11 TANK-	CD:	<0.01	CU:	0.02	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-060-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.036	CA:		ACC:	X
DATE SAMP: 02/04/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.03	pH:	7.10	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	0.01	S-2:	1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-061-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.052	CA:		ACC:	X
DATE SAMP: 02/09/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.007	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.08	pH:	6.70	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:												

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SAMPLE DESCRIPTION	PPM		PPM		PPM		PPM		PPM	
LAB ID NO: 205-062-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.047	CA:	ACC: X
DATE SAMP: 02/14/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.029	NA:	REJ:
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	<0.025	pH:	7.20	MG:		SO4:	APP: X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:	
VOLUME:										
LAB ID NO: 205-063-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.006	CA:	ACC: X
DATE SAMP: 02/14/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:	REJ:
SAMPLE ID: DAILY	FE:	0.2	MN:	<0.025	pH:	7.60	MG:		SO4:	APP: X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:	
VOLUME:										
LAB ID NO: 205-064-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.028	CA:	ACC: X
DATE SAMP: 02/16/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.016	NA:	REJ:
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.10	pH:	6.20	MG:		SO4:	APP: X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:	
VOLUME:										
LAB ID NO: 205-069-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:	ACC: X
DATE SAMP: 02/17/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.004	NA:	REJ:
SAMPLE ID: DAILY	FE:	0.3	MN:	<0.025	pH:	7.10	MG:		SO4:	APP: X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:	
VOLUME:										
LAB ID NO: 205-070-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.080	CA:	ACC: X
DATE SAMP: 02/22/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.002	NA:	REJ:
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	<0.025	pH:	6.60	MG:		SO4:	APP: X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	1	CL:		HARDNESS:	
VOLUME:										
LAB ID NO: 205-071-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.020	CA:	ACC: X
DATE SAMP: 02/22/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.005	NA:	REJ:
SAMPLE ID: DAILY	FE:	0.8	MN:	<0.025	pH:	7.00	MG:		SO4:	APP: X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:	
VOLUME:										
LAB ID NO: 205-076-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.045	CA:	ACC: X
DATE SAMP: 02/24/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.012	NA:	REJ:
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.10	pH:	6.70	MG:		SO4:	APP: X
11 TANK-	CD:	0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:	
VOLUME:										
LAB ID NO: 205-077-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.015	CA:	ACC: X
DATE SAMP: 02/24/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.021	NA:	REJ:
SAMPLE ID: DAILY	FE:	0.3	MN:	<0.025	pH:	7.60	MG:		SO4:	APP: X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:	
VOLUME:										
LAB ID NO: 205-084-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.065	CA:	ACC: X
DATE SAMP: 03/01/94	ZN:	0.12	NI:	<0.025	CR:	<0.05	SE:	0.048	NA:	REJ:
SAMPLE ID: DAILY	FE:	0.4	MN:	0.03	pH:	6.40	MG:		SO4:	APP: X
11 TANK-	CD:	0.01	CU:	<0.01	S-2:	1	CL:		HARDNESS:	
VOLUME:										

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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM	
LAB ID NO: 205-085-94	TL:	0.1	PB:	<0.05	AG:	<0.01	AS:	0.017	CA:		ACC: X
DATE SAMP: 03/01/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.019	NA:		REJ:
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.45	pH:	7.30	MG:		SO4:		APP: X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-090-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.042	CA:		ACC: X
DATE SAMP: 03/03/94	ZN:	0.05	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.08	pH:	6.80	MG:		SO4:		APP: X
11 TANK-BATCH 246	CD:	0.04	CU:	<0.01	S-2:	4	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-091-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.061	CA:		ACC: X
DATE SAMP: 03/07/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.023	NA:		REJ:
SAMPLE ID: DAILY	FE:	1.0	MN:	<0.025	pH:	6.50	MG:		SO4:		APP: X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-096-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.061	CA:		ACC: X
DATE SAMP: 03/09/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.13	pH:	7.00	MG:		SO4:		APP: X
11 TANK-BATCH 249	CD:	<0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-097-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.015	CA:		ACC: X
DATE SAMP: 03/09/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.003	NA:		REJ:
SAMPLE ID: HARRISON STUDY	FE:	3.7	MN:	0.06	pH:	6.00	MG:		SO4:		APP: X
12 TANK-BATCH 249	CD:	<0.01	CU:	0.01	S-2:	1	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-098-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.017	CA:		ACC: X
DATE SAMP: 03/11/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.011	NA:		REJ:
SAMPLE ID: HARRISON STUDY	FE:	0.1	MN:	<0.025	pH:	6.70	MG:		SO4:		APP: X
11 TANK-	CD:	0.02	CU:	<0.01	S-2:	1	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-099-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.066	CA:		ACC: X
DATE SAMP: 03/15/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.17	pH:	6.40	MG:		SO4:		APP: X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	1	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-104-94	TL:	0.5	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC: X
DATE SAMP: 03/16/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.036	NA:		REJ:
SAMPLE ID: HARRISON STUDY	FE:	0.5	MN:	<0.025	pH:	7.60	MG:		SO4:		APP: X
12 TANK-BATCH 253	CD:	0.02	CU:	0.01	S-2:	2	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-105-94	TL:	0.5	PB:	<0.05	AG:	<0.01	AS:	0.049	CA:		ACC: X
DATE SAMP: 03/17/94	ZN:	0.01	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.13	pH:	6.70	MG:		SO4:		APP: X
11 TANK-BATCH 254	CD:	0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:		
VOLUME:											

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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-106-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.007	CA:		ACC:	X
DATE SAMP: 03/18/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.005	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.8	MN:	<0.025	pH:	7.50	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	0.02	S-2:	10	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-112-94	TL:	0.2	PB:	<0.05	AG:	<0.01	AS:	0.002	CA:		ACC:	X
DATE SAMP: 03/24/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.024	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.1	MN:	0.04	pH:	7.50	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	4	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-113-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.077	CA:		ACC:	X
DATE SAMP: 03/25/94	ZN:	0.01	NI:	<0.025	CR:	<0.05	SE:	0.007	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.24	pH:	6.80	MG:		SO4:		APP:	X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-114-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.005	CA:		ACC:	X
DATE SAMP: 03/28/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.010	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.0	MN:	<0.025	pH:	7.40	MG:		SO4:		APP:	X
11 TANK-	CD:	0.01	CU:	<0.01	S-2:	9	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-115-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.028	CA:		ACC:	X
DATE SAMP: 03/28/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.009	NA:		REJ:	
SAMPLE ID: HARRISON STUDY	FE:	0.3	MN:	0.08	pH:	7.60	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-116-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 03/29/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.005	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.2	MN:	<0.025	pH:	6.50	MG:		SO4:		APP:	X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-119-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.011	CA:		ACC:	X
DATE SAMP: 03/31/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.007	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.4	MN:	<0.025	pH:	6.20	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-120-94	TL:	0.1	PB:	<0.05	AG:	<0.01	AS:	0.003	CA:		ACC:	X
DATE SAMP: 04/04/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.073	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.6	MN:	0.05	pH:	6.00	MG:		SO4:		APP:	X
11 TANK-	CD:	0.02	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-121-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.004	CA:		ACC:	X
DATE SAMP: 04/05/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.027	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.6	MN:	<0.025	pH:	7.60	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												

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SAMPLE DESCRIPTION	PPM	PPM	PPM	PPM	PPM	
LAB ID NO: 205-122-94	TL: 0.2	PB: <0.05	AG: <0.01	AS: 0.004	CA:	ACC: X
DATE SAMP: 04/07/94	ZN: 0.27	NI: <0.025	CR: <0.05	SE: 0.028	NA:	REJ:
SAMPLE ID: DAILY	FE: 1.0	MN: 0.08	pH: 6.60	MG:	SO4:	APP: X
11 TANK-	CD: 0.02	CU: <0.01	S-2: <1	CL:	HARDNESS:	
VOLUME:						
LAB ID NO: 205-123-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: <0.002	CA:	ACC: X
DATE SAMP: 04/06/94	ZN: 0.01	NI: <0.025	CR: <0.05	SE: 0.027	NA:	REJ:
SAMPLE ID: DAILY	FE: 0.6	MN: <0.025	pH: 7.40	MG:	SO4:	APP: X
12 TANK-	CD: 0.01	CU: <0.01	S-2: <1	CL:	HARDNESS:	
VOLUME:						
LAB ID NO: 205-124-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: <0.002	CA:	ACC: X
DATE SAMP: 04/08/94	ZN: <0.01	NI: <0.025	CR: <0.05	SE: 0.017	NA:	REJ:
SAMPLE ID: DAILY	FE: 0.9	MN: <0.025	pH: 5.90	MG:	SO4:	APP: X
12 TANK-	CD: <0.01	CU: 0.01	S-2: <1	CL:	HARDNESS:	
VOLUME:						
LAB ID NO: 205-125-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: <0.002	CA:	ACC: X
DATE SAMP: 04/11/94	ZN: <0.01	NI: <0.025	CR: <0.05	SE: 0.006	NA:	REJ:
SAMPLE ID: DAILY	FE: 0.9	MN: <0.025	pH: 7.40	MG:	SO4:	APP: X
12 TANK-	CD: <0.01	CU: <0.01	S-2: <1	CL:	HARDNESS:	
VOLUME:						
LAB ID NO: 205-126-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: <0.002	CA:	ACC: X
DATE SAMP: 04/12/94	ZN: <0.01	NI: <0.025	CR: <0.05	SE: 0.015	NA:	REJ:
SAMPLE ID: DAILY	FE: 1.0	MN: <0.025	pH: 7.60	MG:	SO4:	APP: X
12 TANK-	CD: <0.01	CU: <0.01	S-2: 1	CL:	HARDNESS:	
VOLUME:						
LAB ID NO: 205-127-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: 0.003	CA:	ACC: X
DATE SAMP: 04/14/94	ZN: 0.07	NI: <0.025	CR: <0.05	SE: 0.010	NA:	REJ:
SAMPLE ID: DAILY	FE: 0.5	MN: <0.025	pH: 6.20	MG:	SO4:	APP: X
11 TANK-	CD: <0.01	CU: <0.01	S-2: 2	CL:	HARDNESS:	
VOLUME:						
LAB ID NO: 205-128-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: 0.002	CA:	ACC: X
DATE SAMP: 04/14/94	ZN: <0.01	NI: <0.025	CR: <0.05	SE: 0.008	NA:	REJ:
SAMPLE ID: DAILY	FE: 1.1	MN: <0.025	pH: 6.30	MG:	SO4:	APP: X
12 TANK-	CD: <0.01	CU: <0.01	S-2: 3	CL:	HARDNESS:	
VOLUME:						
LAB ID NO: 205-129-94	TL: 0.2	PB: <0.05	AG: <0.01	AS: <0.002	CA:	ACC: X
DATE SAMP: 04/18/94	ZN: 0.02	NI: <0.025	CR: <0.05	SE: 0.007	NA:	REJ:
SAMPLE ID: DAILY	FE: 1.9	MN: <0.025	pH: 7.10	MG:	SO4:	APP: X
12 TANK-	CD: 0.01	CU: 0.02	S-2: 3	CL:	HARDNESS:	
VOLUME:						
LAB ID NO: 205-130-94	TL: <0.1	PB: <0.05	AG: <0.01	AS: 0.003	CA:	ACC: X
DATE SAMP: 04/20/94	ZN: 0.11	NI: <0.025	CR: <0.05	SE: 0.009	NA:	REJ:
SAMPLE ID: DAILY	FE: 0.9	MN: 0.04	pH: 6.50	MG:	SO4:	APP: X
11 TANK-	CD: 0.02	CU: 0.02	S-2: 1	CL:	HARDNESS:	
VOLUME:						

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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-131-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.005	CA:		ACC:	X
DATE SAMP: 04/21/94	ZN:	0.10	NI:	<0.025	CR:	<0.05	SE:	0.013	NA:		REJ:	
SAMPLE ID: DAILY	FE:	2.0	MN:	0.03	pH:	6.60	MG:		SO4:		APP:	X
11 TANK-	CD:	0.02	CU:	0.02	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-132-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.004	CA:		ACC:	X
DATE SAMP: 04/22/94	ZN:	0.03	NI:	<0.025	CR:	<0.05	SE:	0.018	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.9	MN:	<0.025	pH:	7.30	MG:		SO4:		APP:	X
11 TANK-	CD:	0.01	CU:	<0.01	S-2:	1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-133-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 04/22/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.019	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.3	MN:	<0.025	pH:	7.10	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-134-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.003	CA:		ACC:	X
DATE SAMP: 04/26/94	ZN:	0.01	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.2	MN:	<0.025	pH:	7.70	MG:		SO4:		APP:	X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-135-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.007	CA:		ACC:	X
DATE SAMP: 04/26/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.019	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.3	MN:	<0.025	pH:	7.70	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-136-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.006	CA:		ACC:	X
DATE SAMP: 04/27/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.010	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.9	MN:	<0.025	pH:	7.20	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-137-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 04/29/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.027	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.6	MN:	<0.025	pH:	7.30	MG:		SO4:		APP:	X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-138-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.003	CA:		ACC:	X
DATE SAMP: 04/29/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.007	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.5	MN:	<0.025	pH:	6.80	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-141-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.004	CA:		ACC:	X
DATE SAMP: 05/02/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.013	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.6	MN:	<0.025	pH:	6.60	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:												

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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM	
LAB ID NO: 205-142-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.009	CA:		ACC: X
DATE SAMP: 05/03/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.016	NA:		REJ:
SAMPLE ID: DAILY	FE:	2.3	MN:	<0.025	pH:	6.50	MG:		SO4:		APP: X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	4	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-143-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.010	CA:		ACC: X
DATE SAMP: 05/04/94	ZN:	0.24	NI:	<0.025	CR:	<0.05	SE:	0.007	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.7	MN:	0.08	pH:	7.60	MG:		SO4:		APP: X
12 TANK-	CD:	0.02	CU:	<0.01	S-2:	2	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-144-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.005	CA:		ACC: X
DATE SAMP: 05/04/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.010	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.7	MN:	<0.025	pH:	7.00	MG:		SO4:		APP: X
11 TANK-	CD:	0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-145-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.004	CA:		ACC: X
DATE SAMP: 05/05/94	ZN:	0.10	NI:	<0.025	CR:	<0.05	SE:	0.016	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.7	MN:	<0.025	pH:	7.30	MG:		SO4:		APP: X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-146-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.003	CA:		ACC: X
DATE SAMP: 05/05/94	ZN:	0.06	NI:	<0.025	CR:	<0.05	SE:	0.015	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.5	MN:	<0.025	pH:	6.80	MG:		SO4:		APP: X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-147-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.013	CA:		ACC: X
DATE SAMP: 05/06/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.017	NA:		REJ:
SAMPLE ID: DAILY	FE:	1.0	MN:	<0.025	pH:	7.70	MG:		SO4:		APP: X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-148-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.005	CA:		ACC: X
DATE SAMP: 05/06/94	ZN:	0.06	NI:	<0.025	CR:	<0.05	SE:	0.009	NA:		REJ:
SAMPLE ID: DAILY	FE:	1.8	MN:	<0.025	pH:	7.50	MG:		SO4:		APP: X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-149-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.007	CA:		ACC: X
DATE SAMP: 05/09/94	ZN:	0.07	NI:	<0.025	CR:	<0.05	SE:	0.011	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.5	MN:	0.13	pH:	7.60	MG:		SO4:		APP: X
11 TANK-	CD:	0.02	CU:	<0.01	S-2:	3	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-150-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.032	CA:		ACC: X
DATE SAMP: 05/09/94	ZN:	0.60	NI:	<0.025	CR:	<0.05	SE:	0.021	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.7	MN:	0.13	pH:	7.80	MG:		SO4:		APP: X
12 TANK-	CD:	0.05	CU:	<0.01	S-2:	1	CL:		HARDNESS:		
VOLUME:											

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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM	
LAB ID NO: 205-152-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC: X
DATE SAMP: 05/11/94	ZN:	0.06	NI:	<0.025	CR:	<0.05	SE:	0.004	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.6	MN:	0.03	pH:	6.50	MG:		SO4:		APP: X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-153-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.010	CA:		ACC: X
DATE SAMP: 05/12/94	ZN:	0.03	NI:	<0.025	CR:	<0.05	SE:	0.004	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.5	MN:	0.04	pH:	7.20	MG:		SO4:		APP: X
12 TANK-	CD:	0.02	CU:	<0.01	S-2:	6	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-154-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.004	CA:		ACC: X
DATE SAMP: 05/12/94	ZN:	0.08	NI:	<0.025	CR:	<0.05	SE:	0.006	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.2	MN:	<0.025	pH:	7.40	MG:		SO4:		APP: X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-155-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC: X
DATE SAMP: 05/13/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.021	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.8	MN:	<0.025	pH:	6.80	MG:		SO4:		APP: X
11 TANK-	CD:	0.02	CU:	<0.01	S-2:	3	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-156-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.005	CA:		ACC: X
DATE SAMP: 05/13/94	ZN:	0.04	NI:	<0.025	CR:	<0.05	SE:	0.017	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.7	MN:	<0.025	pH:	7.20	MG:		SO4:		APP: X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-157-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC: X
DATE SAMP: 05/16/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.004	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.8	MN:	<0.025	pH:	7.80	MG:		SO4:		APP: X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	5	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-158-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC: X
DATE SAMP: 05/17/94	ZN:	0.05	NI:	<0.025	CR:	<0.05	SE:	0.012	NA:		REJ:
SAMPLE ID: DAILY	FE:	1.5	MN:	<0.025	pH:	6.30	MG:		SO4:		APP: X
11 TANK-	CD:	<0.01	CU:	0.01	S-2:	2	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-159-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC: X
DATE SAMP: 05/18/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.002	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.4	MN:	<0.025	pH:	7.20	MG:		SO4:		APP: X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	5	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-160-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.003	CA:		ACC: X
DATE SAMP: 05/19/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.002	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.7	MN:	<0.025	pH:	6.80	MG:		SO4:		APP: X
11 TANK-	CD:	<0.01	CU:	0.02	S-2:	3	CL:		HARDNESS:		
VOLUME:											

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SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-161-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 05/20/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.002	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.6	MN:	<0.025	pH:	7.80	MG:		SO4:		APP:	X
11 TANK-	CD:	0.03	CU:	<0.01	S-2:	4	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-162-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.007	CA:		ACC:	X
DATE SAMP: 05/20/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.009	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.5	MN:	<0.025	pH:	7.60	MG:		SO4:		APP:	X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-163-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.004	CA:		ACC:	X
DATE SAMP: 05/23/94	ZN:	0.01	NI:	<0.025	CR:	<0.05	SE:	0.011	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.7	MN:	0.07	pH:	6.70	MG:		SO4:		APP:	X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-164-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.002	CA:		ACC:	X
DATE SAMP: 05/23/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.007	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.4	MN:	<0.025	pH:	6.80	MG:		SO4:		APP:	X
12 TANK-	CD:	0.02	CU:	<0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-165-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.012	CA:		ACC:	X
DATE SAMP: 05/24/94	ZN:	0.03	NI:	<0.025	CR:	<0.05	SE:	0.003	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.6	MN:	<0.025	pH:	6.70	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-168-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.003	CA:		ACC:	X
DATE SAMP: 05/31/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:	
SAMPLE ID: DAILY	FE:	<0.1	MN:	<0.025	pH:	7.70	MG:		SO4:		APP:	X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-169-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.008	CA:		ACC:	X
DATE SAMP: 06/02/94	ZN:	0.15	NI:	<0.025	CR:	<0.05	SE:	0.017	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.1	MN:	<0.025	pH:	6.40	MG:		SO4:		APP:	X
12 TANK-	CD:	0.03	CU:	<0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-170-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.009	CA:		ACC:	X
DATE SAMP: 06/08/94	ZN:	0.15	NI:	<0.025	CR:	<0.05	SE:	0.007	NA:		REJ:	
SAMPLE ID: DAILY	FE:	3.3	MN:	0.04	pH:	6.20	MG:		SO4:		APP:	X
11 TANK-	CD:	0.02	CU:	<0.01	S-2:	2	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-171-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.004	CA:		ACC:	X
DATE SAMP: 06/08/94	ZN:	0.08	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.4	MN:	<0.025	pH:	7.20	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	7	CL:		HARDNESS:			
VOLUME:												

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
WATER TREATMENT
Printed: 07/27/94 14:52

SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM	
LAB ID NO: 205-172-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.002	CA:		ACC: X
DATE SAMP: 06/09/94	ZN:	0.10	NI:	<0.025	CR:	<0.05	SE:	0.011	NA:		REJ:
SAMPLE ID: DAILY	FE:	1.3	MN:	<0.025	pH:	7.20	MG:		SO4:		APP: X
12 TANK-	CD:	<0.01	CU:	<0.01	S-2:	6	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-173-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.013	CA:		ACC: X
DATE SAMP: 06/13/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.008	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.9	MN:	<0.025	pH:	6.70	MG:		SO4:		APP: X
12 TANK-	CD:	0.01	CU:	0.02	S-2:	7	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-174-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC: X
DATE SAMP: 06/15/94	ZN:	0.03	NI:	<0.025	CR:	<0.05	SE:	0.006	NA:		REJ:
SAMPLE ID: DAILY	FE:	2.5	MN:	0.05	pH:	6.50	MG:		SO4:		APP: X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	4	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-175-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.009	CA:		ACC: X
DATE SAMP: 06/16/94	ZN:	0.04	NI:	<0.025	CR:	<0.05	SE:	0.012	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.1	MN:	<0.025	pH:	7.10	MG:		SO4:		APP: X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-185-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	<0.002	CA:		ACC: X
DATE SAMP: 06/17/94	ZN:	0.09	NI:	<0.025	CR:	<0.05	SE:	0.005	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.9	MN:	<0.025	pH:	7.90	MG:		SO4:		APP: X
12 TANK-	CD:	0.03	CU:	<0.01	S-2:	5	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-186-94	TL:	<0.1	PB:	1.4	AG:	<0.01	AS:	0.037	CA:		ACC: X
DATE SAMP: 06/20/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.029	NA:		REJ:
SAMPLE ID: HW-BIOBEAD	FE:	<0.1	MN:	<0.025	pH:	6.70	MG:		SO4:		APP: X
11 TANK-BATCH #3	CD:	<0.01	CU:	<0.01	S-2:	1	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-187-94	TL:	<0.1	PB:	1.4	AG:	<0.01	AS:	0.006	CA:		ACC: X
DATE SAMP: 06/20/94	ZN:	0.06	NI:	<0.025	CR:	<0.05	SE:	0.037	NA:		REJ:
SAMPLE ID: DAILY	FE:	1.6	MN:	<0.025	pH:	7.20	MG:		SO4:		APP: X
12 TANK-	CD:	0.01	CU:	<0.01	S-2:	2	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-204-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.033	CA:		ACC: X
DATE SAMP: 06/22/94	ZN:	0.05	NI:	<0.025	CR:	<0.05	SE:	0.009	NA:		REJ:
SAMPLE ID: HW-BIOBEAD	FE:	0.5	MN:	<0.025	pH:	6.80	MG:		SO4:		APP: X
11 TANK-BATCH #6	CD:	<0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:		
VOLUME:											
LAB ID NO: 205-210-94	TL:	<0.1	PB:	1.5	AG:	<0.01	AS:	<0.002	CA:		ACC: X
DATE SAMP: 06/23/94	ZN:	0.04	NI:	<0.025	CR:	<0.05	SE:	0.026	NA:		REJ:
SAMPLE ID: DAILY	FE:	0.6	MN:	<0.025	pH:	7.20	MG:		SO4:		APP: X
12 TANK-BATCH #7	CD:	<0.01	CU:	0.02	S-2:	5	CL:		HARDNESS:		
VOLUME:											

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
WATER TREATMENT
Printed: 07/27/94 14:52

SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-216-94	TL:	<0.1	PB:	0.42	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 06/24/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.009	NA:		REJ:	
SAMPLE ID: DAILY	FE:	0.4	MN:	<0.025	pH:	6.60	MG:		SO4:		APP:	X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:		CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-217-94	TL:	<0.1	PB:	0.26	AG:	<0.01	AS:	0.007	CA:		ACC:	X
DATE SAMP: 06/24/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.021	NA:		REJ:	
SAMPLE ID: HW-BIOBEAD	FE:	0.6	MN:	<0.025	pH:	7.20	MG:		SO4:		APP:	X
12 TANK-BATCH #8	CD:	<0.01	CU:	<0.01	S-2:		CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-228-94	TL:	<0.1	PB:	0.13	AG:	<0.01	AS:	0.020	CA:		ACC:	X
DATE SAMP: 06/28/94	ZN:	<0.01	NI:	<0.025	CR:	<0.05	SE:	0.006	NA:		REJ:	
SAMPLE ID: HW-BIOBEAD	FE:	<0.1	MN:	<0.025	pH:	7.50	MG:		SO4:		APP:	X
11 TANK-BATCH #9	CD:	0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-229-94	TL:	<0.1	PB:	0.51	AG:	<0.01	AS:	0.010	CA:		ACC:	X
DATE SAMP: 06/28/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.010	NA:		REJ:	
SAMPLE ID: HW-BIOBEAD	FE:	0.7	MN:	<0.025	pH:	7.10	MG:		SO4:		APP:	X
12 TANK-BATCH #9	CD:	0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-230-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.005	CA:		ACC:	X
DATE SAMP: 06/29/94	ZN:	0.01	NI:	<0.025	CR:	<0.05	SE:	0.006	NA:		REJ:	
SAMPLE ID: HW-BIOBEAD	FE:	<0.1	MN:	0.04	pH:	6.20	MG:		SO4:		APP:	X
11 TANK-BATCH #9	CD:	<0.01	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-231-94	TL:	<0.1	PB:	0.73	AG:	<0.01	AS:	<0.002	CA:		ACC:	X
DATE SAMP: 06/29/94	ZN:	0.03	NI:	<0.025	CR:	<0.05	SE:	0.016	NA:		REJ:	
SAMPLE ID: DAILY	FE:	1.0	MN:	<0.025	pH:	6.90	MG:		SO4:		APP:	X
12 TANK-	CD:	<0.01	CU:	0.02	S-2:	3	CL:		HARDNESS:			
VOLUME:												

Rejected Tanks - Reprosessed

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
WATER TREATMENT
Printed: 07/27/94 09:08

SAMPLE DESCRIPTION		PPM		PPM		PPM		PPM		PPM		
LAB ID NO: 205-107-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.043	CA:		ACC:	
DATE SAMP: 03/21/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.006	NA:		REJ:	X
SAMPLE ID: HARRISON STUDY	FE:	<0.1	MN:	0.38	pH:	6.70	MG:		SO4:		APP:	X
11 TANK-	CD:	0.03	CU:	<0.01	S-2:	<1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-151-94	TL:	<0.1	PB:	<0.05	AG:	<0.01	AS:	0.013	CA:		ACC:	
DATE SAMP: 05/10/94	ZN:	1.13	NI:	<0.025	CR:	<0.05	SE:	<0.002	NA:		REJ:	X
SAMPLE ID: DAILY	FE:	0.5	MN:	0.68	pH:	7.50	MG:		SO4:		APP:	X
12 TANK-	CD:	0.08	CU:	<0.01	S-2:	1	CL:		HARDNESS:			
VOLUME:												
LAB ID NO: 205-198-94	TL:	<0.1	PB:	2.35	AG:	<0.01	AS:	0.012	CA:		ACC:	
DATE SAMP: 06/21/94	ZN:	0.02	NI:	<0.025	CR:	<0.05	SE:	0.027	NA:		REJ:	X
SAMPLE ID: DAILY	FE:	1.1	MN:	<0.025	pH:	7.40	MG:		SO4:		APP:	X
11 TANK-	CD:	<0.01	CU:	<0.01	S-2:	3	CL:		HARDNESS:			
VOLUME:												

Jan 94

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
WR	1/3/94	12	1000	70	2636713		5797
WR	1/3/94	11	1530	70	2209303		8230
WR	1/4	11	1600	70	2217533		6777
		12			2647510		7730
WR	1/5	11	1530	70	2224310		7255
WR	1/6	11	1630	70	2231565		7198
		12	1630	70	2650240		7455
WR	1/10	12	1615	70	2657695		7245
WR	1/12	11	1700	70	2238763		8117
WR	1/13	11	1630	70	2246880		7427
		12			2664940		7796
WR	1/17	11	1530	70	2254307		7623
		12	1550	70	2672736		7085
WR	1/18	11	1530	70	2261930		7210
WR	1/19	12	1515	70	2678821		7195
WR	1/21	12	1435	70	2687016		6398
WR	1/24	11	1535	70	2269140		7545
WR	1/25	12	1440	70	2693414		8036
WR	1/27	11	1507	70	2286685		7323
		12			2701450	2291048 2209303 81745	6726
WR	1/31	11	1525	70	2284008		7040
		12			2708176	2715232 2636713 78519	7056

Total 160,264 gals

Feb. '94

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
WR	2/2	11	1555	70	2291048		6533
		12			2715232		6983
WR	2/3	11	1525	70	2297581		7577
WR	2/4	12	1610	70	2722215		7495
WR	2/9	12	1435	70	2729710		8028
WR	2/14	11	1530	70	2305158		5347
		12		70	2737738		7935
WR	2/16	11	1535	70	2310505		6939
WR	2/17	12	1540	70	2745673		7517
DV	2/22	11	1500	70	2317144		8098
		12			2753190		7949
DV	2/24	11	1518	70	2325542	2332980	41932 7
		12			2761139	2768565	53333 7
							95265 gal

March, 1994

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
DL 3/1	11	1522	70	2332980		7195
〃 〃	12	〃	〃	2768365 ~~2756809~~		7097
WR 3/4	11	0940	70	2340175		9178
WR 3/7	12	1617	70	2775462		8408
WR 3/9	11	1520	70	2349353		6972
〃 〃	12	〃	70	2784870		8755
WR 3/11	11	1515	70	2356325		6106
WR 3/15	11	1530	70	2362431		7968
DL 3/17	11	1610	70	2370399		6788
〃 〃	12	〃	〃	2792825		7435
WR 3/18	12	1530	70	2800260		7397
WR 3/24	12	1100	70	2807657		7604
WR 3/25	11	0930	70	2377187		6843
WR 3/28	11	1550	70	2384030		6993
〃 〃	12	〃	〃	2815261		7649
WR 3/30	11	0850	70	2391025	2398337 7316	65357
WR 3/31	12	1430	70	2822910	2831175 8265	74319
						139,676

April, 1994

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
WR	4/4	~~10~~ 11	1500	70	2398337		7752
WR	4/5	12	1540	70	2831175		8498
WR	4/7	11	1505	70	2406089		7222
↓	↓	12	↓	70	2839673		8217
WR	4/8	12	1520	70	2847890		7116
WR	4/11	12	1545	70	2855006		7814
WR	4/12	12	1400	70	2862820		7100
DL	4/14	11	1600	70	2413311		8289
↓	↓	12	↓	↓	2869920		8024 *
WR	4/18	12	1520	70	2877944		8424
WR	4/20	11	1430	70	2421600		7950
WR	4/21	11	1530	70	2429550		6937
WR	4/22	11	1525	70	2436487		6018
↓	↓	12	↓	70	2886368		8012
WR	4/26	11	1600	70	2442505		6934
↓	↓	12	↓	70	2894380		7577
WR	4/27	12	1610	70	2902957		8368
WR	4/29	11	1530	70	2449439	2456349 (10)	6910
↓	↓	12	↓	70	2910325	2918227 (11)	7902
							19
					2456349		
					2398337		
					58012		
						Total	145,064 gals
					2918227		
					2831175		
					87052		

May, 1994

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
~~5/2~~ 5/2	12	1600	70	2918226		8254
WR 5/3	11	1540	70	2456348		7867
WR 5/4	12	0935	70	2926480		7970
WR 5/4	11	1520	70	2464215		7425
WR 5/5	12	0900	70	2934450		7940
〃 5/5	11	1540	70	2471640		6944
WR 5/6	11	1530	70	2478584		7321
〃 〃	12	〃	70	2942310		7962
WR 5/9	11	1530	70	2485905		7249
〃 〃	12	〃	70	2950352		8068
WR 5/11	11	0910	70	2493154		7407
WR 5/12	12	0950	70	2958620		7505
WR 5/12	11	1600	70	2500561		7757
WR 5/13	11	1500	70	2508318		7676
〃 〃	12	〃	70	2966125		8367
WR 5/16	12	1600	70	2974492		7715
WR 5/17	11	1600	70	2515994		7256
WR 5/18	12	1800	70	2982207		8123
WR 5/19	11	1515	70	2523250		7445
WR 5/20	11	1510	70	2530695		7889
〃 〃	12	〃	70	2990330		8730
WR 5/23	11	1245	70	2538584		7154
〃 〃	12	1530	70	2999060	#11	#12
WR 5/24	12	1600	70	3007049	2545738 2456348 89390	3014220 2918226 095994
				12 24 12 11	95994 185384	

June ~~[illegible]~~, 1994
June,

WASTE WATER TREATMENT FLOW METER REPORT

FORM W-1

	Date	Tank	Time Start	Flow Rate/Min	Start Reading	End. Reading	Volume
DJ	6/1	11	1133	70	2545738.		6955
WR	6/2	12	1512	70	3014220		8788
WR	6/4	11	1515	70	2552693		7027
↓	↓	12	1515	70	3023008		12797
DJ	6/9	12	1540	70	3035805		12610
WR	6/10	12	1430	70	3047815		12715
WR	6/15	11	1130	70	2559770		7385
WR	6/16	12	1530	70	3060530		8255
WR	6/17	12	1500	70	3068785		~~7503~~ 750.
DJ	6/20	11	1607	70	2567105		8180
↓	↓	12	↓	↓	3076288		~~7503~~ 766
WR	6/22	11	1530	70	2575285		6320
WR	6/23	12	1505	70	3087950		~~7662~~ 71
WR	6/24	11	1505	70	2581605		5851
↓	↓	12	↓	70	3091121		~~8149~~ 8149 ~~717~~
WR	6/28	11	1530	50	2587456		5936
↓	↓	12	↓	50	3099270		8149
WR	6/29	11	1525	50	2593392	2599875	6483
↓	↓	12	↓	↓	3107419	3115758	~~[illegible]~~ 833
						(8)	(11)
						2599875	3115758
						2545738	3014220
						54137	101538
						155,675 gals	

ASARCO INCORPORATED
Environmental Laboratory

CHAIN OF CUSTODY RECORD

GLOBE PLANT
495 E. 51ST AVENUE
DENVER, CO 80216

PROJ. NO.

PROJECT NAME: Semi Annual Discharge point Monitoring

SAMPLERS: (Signature) Wayne Roll

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 Liter UF/HNO3	1 Liter UF/NaOH					REMARKS
001	7/14/94	0800		✓		1		✓					
001	7/13-14/94	0745-0745	✓			1	✓						

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks	

Distribution: Original Accompanies Shipment; First Copy to Coordinator Field Files; Second Copy to Representative of Inspected Facility

Split Samples: ☐ Accepted ☐ Declined _____ Signature

AG-001043

SKA

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100 90 80 70 60 50 40 30 20 10 0

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100 90 80 70 60 50 40 30 20 10 0

ASARCO GLOBE PLANT
ANALYSIS REPORT FORM
SEWER DISCHARGE
Printed: 07/28/94 08:53

LAB ID NUMBER	DATE SAMPLED	SAMPLED BY/ PREPARATION	AS PPM	CD PPM	CU PPM	NI PPM	PB PPM	SE PPM	ZN PPM	pH	CN-
209-001-94	07/01/94	METRO									0.003
209-002-94	07/01/94	METRO	0.014	0.03	<0.01	<0.025	<0.05	0.018	0.24		

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 209-001-94 Description: Sewer Grab

Sample I.D: Metro Date Submitted: 7/1/94

Parameter	Value	Units	Method	Date Completed	Chemist
CN^-	3.4	mg/L	Dist	7/14/94	na

Approved

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 209-002-94 Description: Sewer Comp

Sample I.D: Metro Date Submitted: 7/5/94

Parameter	Value	Units	Method	Date Completed	Chemist
As	.014	ppm	hydride	7/14/94	WR
Cd	0.03		AA	7/15/94	
Cu	<0.01				
Pb	<0.05				
Ni	<0.025				
Se	0.018		hydride	7/14/94	
Zn	0.24		AA	7/15/94	

Approved

METRO WASTEWATER RECLAMATION DISTRICT

CHAIN OF CUSTODY FORM – SPLIT SAMPLES

SAMPLERS: Russ Ruybal
(Signature)

SPLIT SAMPLE ALIQUOT OF METRO CONTROL NO.	INDUSTRIAL USER (I.U. Number)	MONITORING POINT	SAMPLE DATE(S)	TIME (IF APPLIC.)	SAMPLE PRESERVATIVE	SAMPLE TYPE*	METRO ANALYSES
235874	ASARCO 600	001	6/30/14 - 7/1/14	1030 - 930	HNO_3	FC24	Cd, Cr, Cu, Pb, Ni, Zn, As, Se, As, Hg

*SAMPLE TYPE (REQUIRED): G = GRAB, TC = TIME COMPOSITE, FC24 = FLOW COMPOSITE

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Blair H. Jones	7-5-14 1105	[illegible]	[illegible]	[illegible]	[illegible]
Relinquished by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Relinquished by: (Signature)**	**Date / Time**	**Received by: (Signature)**
		D Chuy			

Split sample results must be submitted to the appropriate connector and the Metro District.

The split sample must be properly maintained, and available to the Metro District for sample result evaluation.

WHITE – METRO DISTRICT'S COPY YELLOW – INDUSTRY'S COPY

ASARCO INCORPORATED
Environmental Laboratory

CHAIN OF CUSTODY RECORD

GLOBE PLANT
495 E. 51ST AVENUE
DENVER, CO 80216

PROJ. NO.

PROJECT NAME: Metro Sampling

SAMPLERS: (Signature) Russ Reybal

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Liter	UF	NaOH				REMARKS
	7/1/94	0945		✓	001	1	✓						CN- Grab

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	7/5/94 1000	Wayne Rabb			
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks	

Distribution: Original Accompanies Shipment; First Copy to Coordinator Field Files; Second Copy to Representative of Inspected Facility

Split Samples: ☐ Accepted ☐ Declined _____ Signature

AG-001044

ASARCO

GLOBE PLANT
TELECOPY TRANSMITTAL

FAX (303) 296-0508

TO: Bill Morgan

FROM: Poppy Staub

DATE: 8/4/94

RE: Split analyses

We are beginning to transmit 6 pages, (including cover page).

If you do not receive the number of pages indicated above, or if the document is unreadable, please call (303) 296-5900. Thank you.

Additional Information:

Attached please find the split analyses for the Asarco Globe Plant. If you have any questions, Please call

Poppy

ASARCO Incorporated • 495 EAST 51ST AVENUE • DENVER, COLORADO 80216-2098 • PHONE 303-296-5900

4.6.5.3

ASARCO

GLOBE PLANT

September 15, 1998

Mr. James T. Graber
Industrial Waste Specialist
Metro Wastewater Reclamation District
6450 York Street
Denver, Colorado 80229-7499

Dear Ted:

Enclosed is the information required in Section 7.0 Measurement of Pollutants and Section 8.0 Methods of Analyses to complete the Asarco Globe Plant's Baseline Monitoring Report (BMR) for the categorical cadmium sulfide process. The BMR, originally submitted on June 11, 1998, indicated that such information would be forthcoming once an entire batch of cadmium sulfide had been produced from which wastewater could be sampled.

Analytical results indicate that concentrations of cadmium, selenium and zinc in the pretreated cadmium sulfide process wastewater are similar at various levels in the tank and are well below the pretreatment standards established for existing sources of cadmium pigments at 40 CFR 415.644. Thus, Asarco would suggest that future sampling be reduced to one representative grab sample per batch.

Asarco has agreed it will store this water until the pretreatment permit held with Metro Wastewater Reclamation District (Metro) is modified. At that time, Asarco will pump to the on-site Wastewater Treatment Plant for further treatment and ultimately discharge to Metro.

To the best of my knowledge and belief, I certify that the submitted information is true, accurate and complete. Please contact me at 303-296-5111 if you require any additional information or have any questions.

Sincerely,

Nicole R. Mathis

Nicole R. Mathis
Environmental Engineer

Enclosure

cc:	(w/ Enc.)	(w/o Enc.)
	R. Litle	M. Staub
	R. Marcus	B. Bunn
	C. Dungey	R. Comer

ASARCO Incorporated. 495 East 51st Avenue. Denver, Colorado 80216-2098
Phone (303) 296-5900 • FAX (303) 296-0508

ASARCO INCORPORATED
Environmental Laboratory

CHAIN OF CUSTODY RECORD

495 E. 51ST AVENUE
DENVER, CO 80216

PROJ. NO.

PROJECT NAME: Cadmium Sulfide waste water

SAMPLERS: (Signature) John P. Vigil Nicole R. Molina

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 liter UF / HNO3 Zn	250 ml UF / unpres. JV					REMARKS
002	9-3-98	13:43		X	CdS waste water Tank 8"	1	X						Samples taken from tank
002	9-3-98	13:44		X	16"	1	X						located outside High Purity Lab
002	9-3-98	13:45		X	24"	1	X						on south side.
002	9-3-98	13:49		X	32"	1	X						
002	9-3-98	13:56	X		8", 16", 24", 32" Comp.	1							
	9-3-98			X	Pb Grab	1		X	7/12	M	JV		

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
John P Vigil	9/3/98 14:00				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks	

Distribution: Original Accompanies Shipment; First Copy to Coordinator Field Files; Second Copy to Representative of Inspected Facility

Split Samples: ☐ Accepted ☐ Declined _____ Signature

AG-000963

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 205-400-98

Description: CdS Wastewater

Sample I.D: 8"

Date Submitted: 9-3-98

Date Sample Prepared: 9/10 - 9/11

neter	Value	Units	True Value	% RPD	% REC	Spike Add.	Method	Date Completed	Chemist
Cd	0.01	ppm					Std. Meth 18th Ed.	9/11	JV
Zn	< 0.01						3111B		
Pb									
Ni									
Cu									
							Std. Meth 18th Ed.		
As							3114B 4d		
Se	0.004						3114B		
							Std. Meth 18th Ed.		
pH							4500-H+B		

DC

Approved

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 205-401-98

Description: CdS Wastewater

Sample I.D: 16"

Date Submitted: 9-3-98

Date Sample Prepared: 9/10 - 9/11

ıeter	Value	Units	True Value	% RPD	% REC	Spike Add.	Method	Date Completed	Chemist
Cd	0.02	ppm					Std. Meth 18th Ed.	9/11	JV
Zn	< 0.01						3111B		
Pb									
Ni									
Cu									
							Std. Meth 18th Ed.		
As							3114B 4d		
Se	0.006						3114B		
							Std. Meth 18th Ed.		
pH							4500-H^+B		

DCY

Approved

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 205-402-98 Description: CdS Wastewater

Sample I.D: 24" Date Submitted: 9-3-98

Date Sample Prepared: 9/10 - 9/11

ıeter	Value	Units	True Value	% RPD	% REC	Spike Add.	Method	Date Completed	Chemist
Cd	0.01	ppm					Std. Meth 18th Ed.	9/11	JV
Zn	<0.01						3111B		
Pb									
Ni									
Cu									
							Std. Meth 18th Ed.		
As							3114B 4d		
Se	0.004						3114B		
							Std. Meth 18th Ed.		
pH							4500-H^+B		

DCL

Approved

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 205-403-98

Description: CdS Wastewater

Sample I.D: 32"

Date Submitted: 9-3-98

Date Sample Prepared: 9/10 - 9/11

neter	Value	Units	True Value	% RPD	% REC	Spike Add.	Method	Date Completed	Chemist
Cd	0.01	ppm					Std. Meth 18th Ed.	9/11	JV
Zn	<0.01						3111B		
Pb									
Ni									
Cu									
							Std. Meth 18th Ed.		
As							3114B 4d		
Se	0.005						3114B		
							Std. Meth 18th Ed.		
pH							4500-H+B		

DPY

Approved

ASARCO, Incorporated

Analytical Laboratory Results

Lab No: 205-404-98

Description: CdS Wastewater

Sample I.D: Composite (8", 16", 24", 32")

Date Submitted: 9-3-98

Date Sample Prepared: 9/10 - 9/11

ıeter	Value	Units	True Value	% RPD	% REC	Spike Add.	Method	Date Completed	Chemist
Cd	0.02	ppm					Std. Meth 18th Ed.	9/11	JV
Zn	< 0.01						3111B		
Pb									
Ni									
Cu									
							Std. Meth 18th Ed.		
As							3114B 4d		
Se	0.006						3114B		
							Std. Meth 18th Ed.		
pH							4500-H^+B		

DCL

Approved

APPENDIX C

LABORATORY CERTIFICATION STATEMENT

(To be signed by a representative of the laboratory performing the analyses on samples collected for the Baseline Monitoring Report and submitted as Attachment 3 to the BMR)

"I have reviewed the attached lists and tables of EPA approved test procedures. All analyses done by our laboratory for this report were performed in accordance with the techniques prescribed in 40 CFR 136, as amended."

ASARCO Inc. Globe Plant Laboratory
Name of Analytical Laboratory

Dennis C. Lux — 9-15-98
Signature of Laboratory Representative — Date

Dennis C. Lux — Chemist
Name (please print or type) — Title