INTERNATIONAL SMELTING AND REFINING COMPANY

TOOELE PLANT - TOOELE, UTAH

REPORT ON AUDIT OF THE SULPHIDE CONCENTRATOR, THE LEAD PLANT AND THE SLAG TREATING PLANT OF THE INTERNATIONAL SMELTING AND REFINING COMPANY, TOOELE, UTAH FOR JANUARY, 1958

MONTH OF JANUARY 1958

TIME REQUIRED FOR AUDIT

R. E. Hathaway	March 18, to May 31, 1958, inclusive
D. G. DeLong	May 16, to 19, 1958, inclusive
D. R. Eamon	May 1, to 4, 1958, inclusive

Audit of the Metallurgical records of the Tooele Plant of the International Smelting and Refining Company for January 1958 included the Sulphide Concentrator, Lead Plant, and Slag Plant.

The receipts in the Sulphide Concentrator were audited 100%. The weights, assays, contracts, settlements, and costs were audited in detail. The lead concentrates transferred to the Lead Plant were audited in detail. Iron concentrates to American Smelting and Refining Company were audited approximately 54%. The zinc concentrates settled for by The Anaconda Company were audited as to weights, assays preliminary and final settlement.

Four of the Lead Plant receipts were audited 100%. One of the receipts was audited approximately 54%. The weights, assays, lot sheets and settlements on the above receipts were audited in detail. The matte, speiss, and lead shipments were audited 100%.

Two of the Slag Plant receipts were audited 50%. One of the receipts was audited 100%. The weights, assays, and settlement on the above receipts were audited in detail. The deleaded zinc fume to National Zinc Company was audited 37%. The deleaded zinc fume to The Anaconda Company was audited 100%. The deleaded zinc fume returned to the American Zinc Company was audited 100%.

The inter-plant movements were audited in detail. The cadmium fume settled for by The Anaconda Company - Great Falls, Montana and cadmium fume at Great Falls belonging to International Smelting and Refining Company was not audited at this time.

The Auditor observed the taking of inventories on April 1 and May 1, 1958. The February 1st inventories were checked from physical and estimated reports on into the statements. The May 1st inventories were checked to inventory records.

January work sheets and statements were audited and followed through to the final cumulative statements.

R. E. Hathaway, Metallurgical Auditor

May 31, 1958

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INTERNATIONAL SMELTING AND REFINING COMPANY

TOOELE PLANT - TOOELE, UTAH

MONTH OF JANUARY 1958

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INTERNATIONAL SMELTING AND REFINING COMPANY

TOOELE PLANT - TOOELE, UTAH

MONTH OF JANUARY 1958

SULPHIDE CONCENTRATOR

RECEIPTS

United Park City Mines Company - Crude Ore

Shipments from the United Park City Mines Company accounted for 100% of the Sulphide Concentrator receipts in January 1958.

Following are some pertinent provisions of the contract with the United Park City Mines:

Gold	- 70% up to and including .05 oz. @ $32.816 per oz. - 80% over .05 oz. @ $32.816 per oz. minimum deduction .01 oz.
Silver	- 15 ozs. or under, pay for 83% at Mint price. - Over 15 ozs., pay for 90% of the excess over 15 ozs. at Mint price. - Minimum deduction .5 oz.
Copper	- 70% at New York electrolytic price, less 6.8565¢ minimum deduction of 15 lbs.
Lead	- 83% less 2.9565¢ minimum deduction of 20 lbs.
Zinc	- 65% less 3.2975¢ when zinc is 5¢ per lb. or less. To this deduction of 3.2975¢ add .4¢ per pound for each 1¢ increase in price of zinc over 5¢ - minimum deduction of 60 lbs. Monthly average on minimum deduction.
Treatment	- $1.49 per dry ton - credit Utah Ore Sampling Company sampling 50¢ per dry ton, adjusted to ½ of actual Utah Ore Sampling Company sampling expense for the month.
Bullion Freight	- $29.63 and $20.45 (includes tax)
Splitting Limits	- Gold - 0.02 oz. per ton; Silver - 0.5 oz. per ton; Lead - 0.5%; Copper - 0.3%; Zinc - 0.5%

Only section no. 2 portion of the Sulphide Concentrator was used during the month of January 1958. All weights, assays and value of receipts were audited in detail for January 1958.

Following is a schedule showing the details for fourteen lots, which were received from the United Park City Mines Company during the month of January 1958:

Percent moisture		2.83 %
Dry pounds		17,133,974
Percent lead		6.074%
Contract pounds - lead		1,040,709
Paid pounds - lead		858,510
Amount - lead		$111,604.88
Price deduction - lead		$ 25,381.79
Percent copper		0.125%
Contract pounds - copper		21,418
Percent zinc		8.845%
Contract pounds - zinc		1,515,557
Paid pounds - zinc	973,724	
Zinc adjustment - January 1958	11,387	985,111
Amount - zinc	$ 97,373.61	
Zinc adjustment - January 1958	1,138.70	$ 98,512.31
Price deduction - zinc	$ 51,582.91	
Zinc adjustment - January 1958	603.23	$ 52,186.14
Ounces per ton - silver		7.965
Contract ounces - silver		68,235.29
Paid ounces - silver		56,635.29
Amount - silver		$ 50,971.16
Ounces per ton - gold		0.0253
Contract ounces - gold		216.615
Paid ounces - gold		130.596
Amount - gold		$ 4,283.87

SULPHIDE CONCENTRATOR

RECEIPTS - Continued

United Park City Mines Company - Crude Ore - Continued

Treatment		
Base amount	$ 12,764.79	
Penalties amount	4,283.49	
Utah Ore Sampling Company - adjustment January 1958	668.12	$ 7,813.18
Cost	$178,787.52	
Zinc adjustment	535.47	
Utah Ore Sampling Company - adjustment	668.12	$179,991.11
Miscellaneous		
Umpire Assay	$ 36.00	
Utah Ore Sampling Company	10,050.78	$ 10,086.78
Freight		$ 11,115.26
Net proceeds	$157,585.48	
Zinc adjustment	535.47	
Utah Ore Sampling Company - adjustment January 1958	668.12	$158,789.07

The Utah Ore Sampling Company sampled and weighed this ore. The International Smelting and Refining Company accepts and uses these weights and moistures but averages the assays of United Park City Mines Company with their own, and calls for Umpire assays when needed.

All January zinc contents were totaled and averaged and the shipper was paid for the balance of zinc in seven lots which had been given the 60 pound minimum deduction, because of low content zinc. This is allowed in the contract if the monthly average assay is high enough to receive the 65% payment. In January there were 11,387 pounds of zinc paid for at 4.7025¢ per pound.

The difference between the January sampling credit total (50¢ per dry ton), and half of the January sampling charge ($1.14 per wet ton) was paid to the shipper as allowed in the contract. The sampling rate was $1.00 per wet ton at time of last audit. This rate was increased to $1.10 per wet ton in October 1954 and $1.14 per wet ton on March 10, 1957.

SHIPMENTS

Following is a statement of treatment, production and losses for the month of January 1958:

Lead Concentrates to Lead Plant

During the month of January 1958 ten cars, totaling approximately 640 wet tons, or 586 dry tons, were transferred to the Lead Plant for treatment.

PNYC 00012311

STATEMENT OF TREATMENT - PRODUCTION AND LOSSES - VALUE OF PRODUCTION - PROFIT OR LOSS - JANUARY 1958

Original Material Treated:	Dry Weight Pounds	Cost of Material	Concentrating Expenses	Cost Per Ton	Grand Total	Lead Pounds	Copper Pounds	Zinc Pounds	Silver Ounces	Gold Ounces
On Hand - 1-1-58										
Custom Ore										
In Bins	1,422,887	$ 12,530.81	$ 70.85	$ -	$ -	86,997	1,580	137,261	7,054.25	14.872
Received										
Custom Ore	17,133,974	179,991.11	33,001.62			1,040,709	21,418	1,515,557	68,235.29	216.615
T o t a l	18,556,861	$ 192,521.92	$ 33,072.47	$ -	$ -	1,127,706	22,998	1,652,818	75,289.54	231.487
On Hand - 1-31-58										
Custom Ore										
In Bins	429,440	3,778.61				25,766	537	38,650	1,994.75	4.294
Treated:	18,127,421	$ 188,743.31	$ 33,072.47	$ 3.6489	$ 221,815.78	1,101,940	22,461	1,614,168	73,294.79	227.193
Value of Production:										
Concentrates Sold										
Zinc Concentrates to Anaconda	2,677,487				$ 84,113.64			1,622,557	2,650.71	16.734
Lead Concentrates to Lead Plant	1,172,527				122,929.49	827,260	13,611		52,757.24	65.747
Iron Concentrates returned from										
Lead Plant	9,122,238				9,122.23	93,797	33,855	282,789	28,223.97	159.063
Sold A.S. & R. Co.	9,122,238				9,122.23	93,797	33,855	282,789	28,223.97	159.063
T o t a l	3,850,014				$ 207,043.13	827,260	13,611	1,622,557	55,407.95	82.481
On Hand Ending - 1-31-58										
Lead Concentrates	289,031				23,767.42	206,368	2,312		14,247.78	16.619
Zinc Concentrates	533,969				17,307.82			328,924	638.09	4.005
Total on Hand Ending & Sales	4,673,014				$ 248,118.37	1,033,628	15,923	1,951,481	70,293.82	103.105
On Hand Beginning - 1-1-58										
Zinc Concentrates	770,278				23,704.70			462,167	689.40	5.777
Value of Production										
Zinc Concentrates	2,441,178				77,716.76			1,489,314	2,599.40	14.962
Lead Concentrates	1,461,558				146,696.91	1,033,628	15,923		67,005.02	82.366
Total Value of Production	3,902,736				$ 224,413.67	1,033,628	15,923	1,489,314	69,604.42	97.328
Metal Losses						68,312	6,538	124,854	3,690.37	129.865
Ratio of Concentration 4.645 into 1										
Percent Savings (Recovery)						93.801%	70.892%	92.265%	94.965%	42.839%
Profit before Silver Adjustment *					$ 2,597.89					
Silver Adjustment					5,332.26					
Profit after Silver Adjustment					$ 7,930.15					
Depreciation					1,025.36					
Profit after Depreciation					$ 6,904.79					
Division of Profit *										
Custom Material					$ 2,597.89					

PNYC 00012312

SULPHIDE CONCENTRATOR

SHIPMENTS - Continued

Lead Concentrates to Lead Plant

There were three cars, 159, wet tons, or 145 dry tons, of lead concentrates in inventory at January 31, 1958. The above three cars were transferred to stockpiles in February 1958. Usually the lead concentrates are transferred to the Lead Plant and all inventories are carried as Lead Plant inventories.

A schedule of payments and credits, similar to the Lead Plant open contract, is used for valuing these concentrates for transfer. The schedule, including latest changes in freight and labor rates, is as follows:

Lead	- 1.5 units, balance 95% @ New York Electrolytic Price, less 2.3565¢ per pound.
Copper	- (minimum deduction - 10 lbs.), 90% @ New York Electrolytic Price, less 3.8565¢ per pound.
Zinc	- If 5%, 80% @ 22% of East St. Louis price. No penalty if under 5%.
Silver	- If 1 ounce per ton - 97½% @ Mint Price
Gold	- If .02 ounces per ton - 91% @ $35.00 per ounce.
Iron	- Credit - 6¢ per unit.
Insoluble	- Charge - 10¢ per unit.
Sulphur	- 2% free - balance 25¢ per unit - maximum $2.25 per ton.
Zinc	- Charge - 15¢ per unit paid for.
Treatment	- $14.625 per dry ton plus or minus 8¢ per unit of lead over or under 48%. (after deducting 1.5 units)

All weights, assays and value of shipments were audited in detail for January 1958.

Iron Concentrates Settled For By American Smelting And Refining Company - Garfield, Utah

In January 1958, eleven lots, 4,561 dry tons of Iron Concentrates, were taken from stockpile and sold to American Smelting and Refining Company, Garfield, Utah. A value of $2.00 per dry ton was paid for this concentrate as per letter to Mr. Glen Burt, Ore Buyer, dated November 26, 1957. All weights and assays used are taken from American Smelting and Refining Company's settlement sheets. On the Statement of Treatment - Production and Losses the Iron Concentrates are shown as a return from Lead Plant and a sale to American Smelting and Refining Company, for same weights and value. In January 1958, 54% of the settlement sheets were audited in detail and checked to summary sheet.

Zinc Concentrates Shipped to The Anaconda Company - Anaconda, Montana

During the month of January 1958, there were 26 cars, or 1,348 dry tons, of zinc concentrates shipped to Anaconda, Montana. The weights, moistures, and assays for material shipped are based on the International Smelting and Refining Company calculations. All weights, moistures, and assays were audited for the month of January 1958 on shipment.

Zinc Concentrates Settled For By The Anaconda Company - Anaconda, Montana

There were 26 cars, 1,462 wet tons, or 1,339 dry tons, of zinc concentrates settled for by The Anaconda Company in January 1958. The wet weights, moistures, and dry weights of The Anaconda Company are used. Assays are tested for splitting limits and the average is used unless outside of splitting limit. If outside the limit, repeat assays are prepared and result of these assays are used. The splitting limits are as follows:

Lead	- .3%	Gold	- .005 oz. per ton
Zinc	- .4%	Insoluble	- .4%
Silver	- .4 oz. per ton	Iron	- .4%

The preliminary and final settlements were audited in detail for December 1957. Also the preliminary settlement for January 1958 was audited in detail.

INVENTORIES

The estimated tonnages were checked to the "ore in bin record books" on file in Mr. Clark's, Chief Clerk, office. The actual moisture and assays were used to calculate contents on a first-in, first-out basis.

The lead concentrate was carried in the Sulphide Concentrator inventories and transferred to stockpile in February 1958. Actual weights and assays were used in calculating contents and values of concentrates.

The zinc concentrates on hand were estimated by Mr. Kettner, Sulphide Concentrator Superintendent, but actual assays were used in calculating contents and values.

All the concentrator bin inventories at February 1 and May 1 were checked to the inventory work sheets. The Auditor accompanied Mr. James Lougy, Metallurgical Clerk, and Mr. Edson Porter, Clerk, on an inventory observation of bins on April 1 and May 1, 1958. At this observation, all bins were measured and the cars with concentrates were observed and later checked to reports of material on hand at February 1 and May 1, 1958.

VALUATION OF INVENTORIES

Ore in Bins

PNYC 00012313

Following is a statement showing the value of the bin inventories, as at January 31, 1958:

VALUE OF MATERIAL ON HAND - JANUARY 31, 1958

	Dry Weight Pounds	Lead Pounds	Lead Amount	Copper Pounds	Zinc Pounds	Zinc Amount	Silver Ounces	Silver A…
On Hand - January 1, 1958								
In Bins								
Custom Ore	1,422,887	86,997	$ 6,151.55	1,580	137,261	$ 4,080.46	7,054.25	$ 2,0…
Received:								
Purchased Ore	17,133,974	1,040,709	78,409.91	21,418	1,515,557	46,326.17	68,235.29	50,9…
Total	18,556,861	1,127,706	$ 84,561.46	22,998	1,652,818	$ 50,406.63	75,289.54	$ 53,0…
On Hand - January 31, 1958								
In Bins								
Custom Ore	429,440	25,766	1,953.31	537	38,650	1,181.39	1,994.75	57…
Put Into Process	18,127,421	1,101,940	$ 82,608.15	22,461	1,614,168	$ 49,225.24	73,294.79	$ 52,4…
In Process - 1- 1-58	Nil							
In Process - 1-31-58	Nil							
Treatment	18,127,421	1,101,940	82,608.15	22,461	1,614,168	49,225.24	73,294.79	52,4…
Ore on Hand - 1-31-58								
In Bins	429,440	25,766	1,953.31	537	38,650	1,181.39	1,994.75	57…
In Process	Nil							
Total	429,440	25,766	$ 1,953.31	537	38,650	$ 1,181.39	1,994.75	$ 57…
Reduction Expenses								
Total - Sulphide Concentrator Inventory Cost								
Value of Zinc Concentrates on Hand								
Value of Lead Concentrates on Hand								
Reconcilement:								
Inventory		25,766		537	38,650		1,994.75	
Add Losses Deferred		Nil		Nil	Nil		Nil	
Total as Above		25,766		537	38,650		1,994.75	

PNYC 00012314

SULPHIDE CONCENTRATOR

VALUATION OF INVENTORIES - Continued

Ore in Bins - Continued

The ore in bins is valued at cost, on a first-in, first-out basis, except for silver and gold. The total silver ounces paid for are valued at 34.75¢ per ounce. The total value of gold paid for is divided by $34.91 to arrive at ounces paid for and this total is valued at $34.00 per ounce. Due to the difference in terms of the many contracts as to the per-cent of gold paid for and the price, all are based on an approximate $34.91 price per ounce. This is market price less cost to market.

Lead Concentrates

Following is a statement showing the value of the lead concentrates on hand at January 31, 1958:

LEAD CONCENTRATES ON HAND - JANUARY 31, 1958

	%	Dry Weight	Lead		Copper		Zinc		Silver		Gold		%	%	%	%
	H2O	Pounds	Per Cent	Pounds	Per Cent	Pounds	Per Cent	Pounds	Oz.per Ton	Ounces	Oz.per Ton	Ounces	Ins	Fe	S	CaO
Lead Concentrates On Hand	9.224	289,031	71.400	206,368	.800	2,312	4.400	12,717	98.590	14,247.78	.1150	16.619	2.20	1.80	16.20	.60

Detail

	Contents		Contents Paid For			Dr.	Cr.
Lead	206,368	lbs. - 1.5 @ 95%	191,931	lbs. @ $	.13000	$	$ 24,951.03
Copper	2,312	lbs. - 10# or 90%	867	lbs. @	.25114		217.74
Silver	14,247.78	ozs. @ 97½%	13,891.59	ozs. @	.34750		4,827.33
Gold	16.619	ozs. @ 91 %	15.123	ozs. @	35.0000		529.31
Metal Deduction - Lead			191,931	lbs. @	.023565	4,522.85	
Copper			867	lbs. @	.038565	33.44	
Credit - Iron			5,203	lbs. @	6¢ per unit	15.61	
Debit -- Insoluble			6,359	lbs. @	10¢ per unit	31.80	
Sulphur	46,823	lbs. - 2%	41,042	lbs. @	$ 2.25 per ton maximum or 25¢ per unit	325.16	
Treatment			144.5155	tons @	12.8730	1,860.35	
						$ 6,757.99	$ 30,525.41
			Net Amount				$ 23,767.42

Base	$ 14.6250
Credit - Lead over 48% @ 8¢ per unit	1.7520
	$ 12.8730

The lead concentrates are usually carried on the Lead Plant inventory records. In January 1958, there were three cars hel in Sulphide Concentrator inventory and in February they were transferred to stockpile. Lead concentrates are valued at the contract price except for silver which is valued at 34.75¢ per ounce. The gold contract price is $35.00 per ounce and this value is used for gold valuation.

Zinc Concentrates

Following is a statement showing the value of the zinc concentrates on hand at January 31, 1958:

PNYC 00012315

SULPHIDE CONCENTRATOR

VALUATION OF INVENTORIES - Continued

Zinc Concentrates - Continued

ZINC CONCENTRATES ON HAND AND IN TRANSIT - JANUARY 31, 1958

	%	Dry Weight	Lead		Copper		Zinc		Silver		Gold		%	%	%	%
	H2O	Pounds	Per Cent	Pounds	Per Cent	Pounds	Per Cent	Pounds	Oz. per Ton	Ounces	Oz. per Ton	Ounces	Ins	Fe	S	CaO
On Hand and In Transit	7.490	533,969	.900	4,805	.250	1,335	61.600	328,924	2.390	638.09	.0150	4.005	1.60	2.30	31.50	.20

D E T A I L

Contents					Contents Paid For				Dr.	Cr.
Zinc	328,924	lbs.	@	85%	279,585	lbs.	@	$ .107223	$	$ 29,977.94
Silver	638.09	ozs.	@	80%	510.47	ozs.	@	.34750		177.39
Gold	4.005	ozs.	@	80%	3.204	ozs.	@	33.780		108.23
Treatment					266.9845	tons	@	28.680	7,657.12	
Freight					288.600	tons	@	8.9237	2,575.38	
Labor Adjustment					266.9845	tons	@	10.200	2,723.24	
									$ 12,955.74	$ 30,263.56
					Net Amount					$ 17,307.82

Zinc concentrates are still valued at the contract sales prices except for silver which is valued at 34.75¢ per ounce. The contract states a gold price of $33.78 per ounce and this is used for valuation.

In-Process

On February 1, 1958 no fixed in-process inventories are reported in this plant because it was between runs when the inventory was taken.

PNYC 00012316

LEAD PLANT

RECEIPTS

Following is a schedule showing the details of material received during the month of January 1958:

STATEMENT OF CUSTOM MATERIAL RECEIVED - JANUARY 1958

	%	Dry Weight	Lead		Copper		Zinc		Silver		Gold		
	H20	Pounds	Per Cent	Pounds	Per Cent	Pounds	Per Cent	Pounds	Oz. per Ton	Ounces	Oz. per Ton	Ounces	Cost
Combined Metals Reduction Company													
Bauer													
Concts.	8.871	976,335	53.402	521,378	1.226	11,974			40.654	19,846.18	.0506	24.678	$ 65,513.85
Bristol Silver Mines Company													
Crude	11.826	1,110,567	1.228	13,633	10.671	118,509			21.385	11,874.94	.0230	12.776	29,952.14
Arthur E. Birch													
Crude	.330	933	30.200	262	.100	1			34.550	16.12			22.54
Thermoid Western													
Lead Dross	2.260	22,715	94.520	21,470	.200	45			.100	1.14			2,820.99
National Zinc Company													
Zinc Residue	11.200	104,908	41.400	43,432	.300	315			135.480	7,106.47	.2725	14.294	9,823.95
American Zinc Company of Illinois													
Zinc Residue	8.926	789,051	2.751	21,705	2.003	15,807	27.589	217,694	22.195	8,756.59	.0621	24.492	4,328.79
Lead Residue Sands	51.210	44,653	42.844	19,131	.204	91			195.737	4,370.12	.1077	2.405	5,102.83
Sulphide Cake	49.170	13,389	4.556	610	5.699	763	10.718	1,339	208.730	1,397.34	.0066	.044	1,236.97
Total	13.934	847,093	4.893	41,446	1.967	16,661	25.857	219,033	34.292	14,524.05	.0636	26.941	$ 10,668.59
The Anaconda Company													
Anaconda, Montana													
Arsenic Residue	10.595	1,037,295	14.885	154,397	14.157	146,850			8.705	4,514.61	.0322	16.677	35,324.05
Total Purchased Ore	11.214	4,099,846	19.416	796,038	7.180	294,355	5.340	219,033	28.237	57,883.51	.0465	95.366	$153,126.11
Material Received from													
Sulphide Concentrator		7,949,711		733,463		20,244				24,533.27		93.316	113,807.26
Slag Treatment Plant	.260	880,920	46.600	410,509	.020	176			7.190	3,166.91	.0100	4.405	35,550.33
Grand Total Material Received		2,968,945		1,940,010		274,287		219,033		85,583.69		6.455	$302,483.70

PNYC 00012317

LEAD PLANT

RECEIPTS - Continued

Combined Metals Reduction Company - Bauer, Utah - Concentrates

In January 1958, nine lots, or 488 dry tons, were received from the Combined Metals Reduction Company. This concentrate accounted for 24% of the Lead Plant receipts in January. This concentrate is weighed and a moisture is prepared by International Smelting and Refining Company for settlement purposes. The International Smelting and Refining Company assays are averaged with shipper assays and the average assay is used for settlement, unless an umpire assay is needed. Repeat assays are prepared before umpire assays are required.

The schedule for payment on this concentrate is as follows:

Gold - If .01 oz. or over, 91% @ Government Price ($35.00).
Silver - If 1 oz. and under 35 ozs., 95% @ Mint Price.
- If 35 ozs. and under 45 ozs., 96% @ Mint Price.
- If 45 ozs. or more, 97% @ Mint Price

Month's receipts to be averaged, exclusive of crude ore, and adjusted settlements by statement if shipper is benefited.

Lead - If 2.5% or over, 90% of settlement lead (see detail of settlement lead) at N. Y. Price, less 2.1525¢ (8/26/57)

Settlement Lead Definition: When lead price is under 10¢, deduct 30# per ton from wet assay.

Lead Price	Deduction from Wet Assay: Pounds	Deduction from Wet Assay: Units
10¢ and under 11¢	23	1.15
11¢ and under 12¢	22	1.10
12¢ and under 13¢	21	1.05
13¢ and under 14¢	20	1.00
14¢ and under 15¢	19	0.95
15¢ and under 16¢	18	0.90
16¢ and under 17¢	17	0.85
17¢ and under 18¢	16	0.80
18¢ and under 19¢	15	0.75
19¢ and under 20¢	14	0.70

Continue to reduce lead deduction one pound for each cent in same manner to zero pounds.

Copper - Pay for 90% as lead or deduct 15# and pay for balance at New York Electrolytic price of copper, less 5.1565¢.
Zinc - If 10% or over, 80% at 22% of East St. Louis price for Prime Western Zinc.
Insoluble - Charge 10¢ per unit up to and including 45%. Charge over 45% at 3¢ per unit.
Sulphur - 2% free, charge excess over 2%, to and including 6%, at 25¢ per unit. Charge excess over 6% at 5¢ per unit. Maximum charge for sulphur $2.00 per ton.
Zinc - When no zinc is paid for, charge the excess over 5% at 25¢ per unit. When zinc is paid for, charge all zinc at 15¢ per unit.

Monthly average only on zinc penalized at 25¢ per unit.

Iron + Manganese - Credit at 8¢ per unit.
Lime - If 3% over, credit at 5¢ per unit.
Arsenic and Antimony - If monthly average is over 2%, penalize for excess over 2% at 50¢ per unit.
Treatment - $10.712 per dry ton on 20% settlement lead plus and minus 8¢ per unit. Additional credit for settlement lead over 45% at 3¢ per unit.

When net payment as determined above is less than $13.00, credit 10% of deficiency to a maximum of 75¢ per dry ton.

Credit for tonnage over 85 tons per day at rate of 1¢ for each ton over 85 tons. Maximum credit 50¢ per ton monthly average.

Variations

PNYC 00012318

Labor - $14.41 plus and minus 15¢ each 25¢.
Coke - $25.06 plus and minus 15¢ each $1.00.
Bullion Freight - $29.63 including tax - Shipper's account.

Note: This contract contains "option for treatment of lead on toll," details of which will not be detailed until option is exercised.

LEAD PLANT

RECEIPTS - Continued

Combined Metals Reduction Company - Continued

Variations

Splitting Limits

Gold	- .01 oz. per ton	Insoluble	- 1.0%
Silver	- 0.3 ozs. per ton	Sulphur	- 1.0%
Lead	- 0.4%	Manganese	- 1.0%
Copper	- 0.2%	Lime	- 1.0%
Zinc	- 0.5%	Iron	- 1.0%

54% of the Combined Metals Reduction Company concentrates were audited in detail for January 1958.

Bristol Silver Mines Company - Pioche, Nevada - Crude Ore

Two lots, or 555 dry tons, were received in January 1958. This ore accounted for 27% of the Lead Plant receipts in January. Weights and moistures are prepared by International Smelting and Refining Company for settlement pruposes. The average assay is used for settlement unless an umpire assay is needed.

The schedule for payment on this ore is as follows:

Gold	- If .02 oz., 100% @ $31.816 per oz.
Silver	- If 1 oz., 95%.
Copper	- 90% at New York Electrolytic, less 3.8565¢ lb. minimum deduction 15# per ton. Maximum deduction 20# per ton.
Insoluble	- Charge at 5¢ per unit.
Zinc	- 10% free, excess at 30¢ per unit.
Arsenic	- 3% free, excess at 60¢ per unit.
Iron + Manganese + Lime	- Credit at 5¢ per unit. Maximum credit $1.00 per ton.
Treatment	- $8.876 per dry ton. If value of material is $9.00 or less, credit $1.00 per ton. (Value means payment for metals plus credits and minus treatment and penalties.)
Common Labor	- $14.41 variation 15¢ each 25¢.
Bullion Freight	- $29.63 (includes tax)
Metal Prices	- Date of arrival of first car in lot to govern.

This schedule effective with receipts at Warren Junction on March 1, 1957, as per letter to Mr. G. D. Burt, Ore Buyer, dated March 1, 1957.

Splitting Limits

Gold	- .01 oz. per ton	Insoluble	- 1.0%
Silver	- 0.3 oz. per ton	Zinc	- 1.0%
Copper	- 0.2%	Arsenic	- 1.0%

Iron, Manganese and Lime - 1.0%

All the weights, assays and costs were audited in detail for January 1958.

National Zinc Company, Inc. - Bartlesville, Oklahoma - Zinc Lead Residue

In January 1958, one lot, or 52 dry tons, of zinc lead residue was received. This residue accounted for 3% of the Lead Plant receipts in January. Weights and moistures are prepared by International Smelting and Refining Company for settlement purposes. The average assay is used for settlement unless an umpire assay is needed.

The schedule for payment on this residue is as follows:

Gold	- If .02 oz., 91% @ $35.00 per oz.
Silver	- If 1 oz. and under 75 ozs., 95% at Handy and Harmon foreign price week ending Wednesday, next preceding date of sampling. Minimum deduction 0.5 oz. If 75 ozs. or over, 97.5% at foreign price.
Lead	- Deduct 1.5 units, 90% at New York Electrolytic market, less 2.5065¢.
Copper	- Deduct 0.75 units, 100% at New York Electrolytic market, less 6.8565¢.
Zinc	- If 10% and under 15%, 75% @ 22% of East St. Louis price. If 15% or over, add to the 22% of East St. Louis price at rate of 2% for each 1% zinc over 15% to maximum of 32% of the East St. Louis price.
Arsenic and Antimony	- 1% free, charge excess at 50¢ per unit.

PNYC 00012319

LEAD PLANT

RECEIPTS - Continued

National Zinc Company, Inc. - Continued

Treatment - $13.949 per net dry ton f.o.b. International, Utah, when the settlement lead is 30% or under. Credit settlement lead at 10¢ per unit over 30%.

Variables
- Labor - $18.773 plus and minus 17¢ each 25¢.
- Coke - $25.06 plus and minus 15¢ each $1.00.
- Bullion Freight - $29.63 (includes 3% tax). Variation for shipper's account.

Splitting Limits:

Gold	- 0.01 oz. per ton	Zinc	- 0.5%
Silver	- 0.5 oz. per ton	Arsenic	- 0.5%
Lead	- 0.4%	Antimony	- 0.5%
Copper	- 0.3%		

The weights, assays and cost were audited in detail on this one lot for January 1958.

American Zinc Company of Illinois - Mansanto, Illinois - Zinc Residue

During the month of January 1958, 395 dry tons of zinc residue, 22 dry tons of lead residue sands and 7 dry tons of sulphide cake was received from the American Zinc Company.

The International Smelting and Refining Company weights and moisture are used for settlement purposes. The average assay is used for settlement unless an umpire assay is needed.

The schedule for payment of this zinc residue is as follows:

- Gold - If .02 oz. 91% @ $35.00 per oz.
- Silver - If 1 oz., 95% at Foreign price. Minimum deduction .5 oz.
- Lead - Deduct 1 unit, 90% of balance at market, less 2.3565¢.
- Copper - Deduct 15 pounds, balance at New York Electrolytic, less 5.8565¢.

Toll Metals
- Zinc - Return 80% of zinc currently as residue is treated in form of deleaded zinc fume, of not less than 69% grade, aboard cars at International, Utah. Toll charge - $6.75 per dry ton.
- Cadmium - Monthly composite - If 0.10% cadmium or over, return 75% of cadmium in balls to Great Falls, Montana 100 days after date of receipt of last carload of zinc residue taken into monthly accounts. Toll charge of 50¢ per pound of returnable cadmium will be assessed in the monthly accounting.

Base Treatment Charge - $23.186 per short dry ton or 19.5¢ zinc plus 55¢ each 1¢ under 19.5¢ to maximum addition of $3.00 per ton when zinc is 12.5¢ or under maximum addition of $2.00 per ton effective on shipments billed out on July 23, 1957.

Note: Add to base treatment charge an amount not to exceed $1.10 per ton residue when certain freight rate reductions become effective.

Insoluble + Iron - Charge excess over 34% at 30¢ unit.
Arsenic + Antimony - Charge excess over 1% at 50¢ unit.

Variables
- Labor - $18.773 plus and minus 20¢ each 25¢.
- Coke - $25.06 plus and minus 15¢ each $1.00.
- Bullion Freight - $29.63 for shipper's account.

Splitting Limits

Gold	- 0.01 oz.	Lead	- 0.40%
Silver	- 0.30 oz.	Zinc	- 0.50%
Copper	- 0.20%	Cadmium	- 0.04% (Repeat before umpire)
Insoluble, Iron, Arsenic, Antimony	- 1%		

Lot No. 1824 was audited in detail on preliminary and final settlement. Lot No. 1836 was audited in detail in preliminary settlement. The transfer of toll charges was audited for January 1958.

PNYC 00012320

LEAD PLANT

RECEIPTS - Continued

Thermoid Western Company - Nephi, Utah - Lead Dross

One lot, or 11 dry tons, was received in January 1958. International Smelting and Refining Company moistures and assays are used for settlements.

The schedule for payments are as follows:

Lead	- Deduct 1.5 units, 90% of balance at New York Electrolytic, less 2.5065¢ per pound.
Treatment	- $15.365 per dry ton.
Handling Charge	- $5.00 if under 10 tons.

This lot was audited in detail for month of January 1958.

The Anaconda Company - Anaconda, Montana - Arsenic Plant Residue

Two lots totaling 519 dry tons of arsenic residue were received during the month of January 1958. The International Smelting and Refining Company samples and weights are used to settle on each lot. The assays are checked for splitting and are used for settlement unless an umpire assay is needed. There was a difference in weights and moistures between the International Smelting and Refining Company records and The Anaconda Company records. Under errors and discrepancies a detail of the findings is reported in this audit.

Schedule for payments is as follows:

Gold	- If .02 oz., 91% @ $35.00 per oz.
Silver	- If 1 oz., 95% @ Mint Price.
Lead	- Deduct 1.5 units, pay for 90% at New York Electrolytic price, less 2.5065 per lb.
Copper	- Pay for 90% at New York Electrolytic price, less 4.3565¢ per lb. minimum deduction 20¢ per ton.
Insoluble	- Charge @ 10¢ per unit.
Iron	- Credit @ 6¢ per unit.
Sulphur	- 2% free, charge excess @ 15¢ per unit.
Zinc	- 5% free, charge excess @ 25¢ per unit.
Arsenic	- Charge all @ 50¢ per unit.
Antimony	- Charge all @ 75¢ per unit.
Bismuth	- Charge all @ 25¢ per unit.
Treatment	- $10.796 on 31.5% wet lead plus and minus 8¢ per unit.

Variables

Labor	- $13.773. Variation 15¢ each 25¢.
Bullion Freight	- $29.63 (tax included) Variation for shipper's account.
Coke	- $25.06. Variation 15¢ each $1.00.

Splitting Limits

Gold	- .005 ozs.	Copper	- 0.3%
Silver	- 0.5 oz.	Bismuth	- 0.15%
Lead	- 0.5%	Others	- 1.00%

The final settlement, lot No. 1830, and preliminary settlement, lot No. 1846, was audited in detail for January 1958.

The Lead Plant received 441 dry tons of lead fume from the Slag Plant in January 1958.

SHIPMENTS

Following is a statement of Cost - Treatment - Production and Losses for the month of January 1958:

PNYC 00012321

LEAD PLANT

STATEMENT OF COST - TREATMENT - PRODUCTION AND LOSSES - JANUARY 1958

	Dry Weight Pounds	Cost of Material Treated	Reduction Expenses	Lead Pounds	Copper Pounds	Silver Ounces	Gold Ounces
Original Material:							
On Hand - 1-1-58							
In Stock Piles							
Custom	55,568,574	$134,856.50	$	2,214,649	163,885	165,412.52	1,682.389
Darwin Mines	2,030,035	79,056.92		592,688	14,817	27,121.33	31.143
Shoshone Mines	947,632	38,356.00		308,220	2,669	5,857.63	56.925
In Bins							
Custom	5,963,736	136,087.41	2,906.60	1,196,045	90,875	54,503.76	188.524
Darwin Mines	249,813	8,831.60		65,994	1,748	3,320.69	4.056
Shoshone Mines	237,996	5,100.63		44,719	501	903.70	6.705
By-products							
Custom	5,637,104	127,087.75	145.44	1,498,288	418,431	56,710.43	159.015
Cost of Finishing Lead in Wells, Kettles, etc.			492.49				
Cadmium Plant Expense			6,911.09				
Received:							
Custom Ore	4,099,846	153,126.11	194,038.95	796,038	294,355	57,883.51	95.366
Material from:							
Sulphide Concentrator	7,949,711	113,807.26		733,463	20,244	24,533.27	93.316
Slag Treatment Plant	980,920	35,550.33		410,509	176	3,166.91	4.405
Total	67,673,945	$831,860.51	$203,509.59	7,860,613	967,213	399,413.75	2,135.202
On Hand - 1-31-58							
In Stock Piles							
Custom	41,774,222	11,395.35		653,332	88,076	57,824.44	1,294.189
In Bins							
Custom	3,193,802	27,916.44	721.32	281,229	30,082	10,897.03	65.351
By-products							
Custom	3,972,753	80,020.10		1,065,901	416,794	49,601.51	132.940
Cost of Finishing Lead in Wells, Kettles, etc.			260.12				
Cadmium Plant Expense			6,466.75				
Total	48,940,777	$ 96,541.19	$ 6,927.95	2,000,462	534,952	118,322.98	1,492.480
	18,733,168	$735,319.32	$196,581.64	5,860,151	432,261	281,090.77	642.722
Treated							
Prorated into:							
Custom	15,259,692	$603,974.17	$160,634.98	4,848,530	412,526	243,887.42	543.893
Darwin Mines	2,287,848	87,888.52	23,676.71	658,682	16,565	30,442.02	35.195
Shoshone Mines	1,185,628	43,456.63	12,269.95	352,939	3,170	6,761.33	63.634
Cost per ton			$20.9875				
Production							
Lead Bullion	6,374,809			6,209,208		290,386.00	874.100
Slag to Slag Treatment Plant	13,243,200			212,775	38,123	1,726.01	4.580
To The Anaconda Company - Anaconda,							
Montana Dross Reverberatory Matte	207,204				50,624	2,166.74	4.288
Dross Reverberatory Speiss	790,814				440,335	32,655.11	70.492
Total Production	20,616,027			6,421,983	529,082	326,933.86	953.460
Cost per pound of Lead		3.1660¢					
Losses				561,832	96,821	45,843.09	310.738
Production				6,421,983	529,082	326,933.86	953,460
Prorated into:							
Custom Ores				5,473,149	514,310	289,784.50	859.986
Darwin Mines				615,661	12,941	30,416.67	33.066
Shoshone Mines				333,173	1,831	6,732.69	60.408
Percent Savings:				109.587%	122.399%	116.309%	148.347%
Custom Ore				112.883%	124.673%	118.819%	158.117%
Darwin Mines				93.469%	78.123%	99.917%	93.940%
Shoshone Mines				94.400%	57.760%	99.576%	94.936%
Reconcilement:							
Losses per Cost Sheets				569,883	97,043	45,973.79	311.007
Deferred from 12-31-57				8,051	222	130.70	.269
Total				561,832	96,821	45,843.09	310.738
Deferred to 2- 1-58				nil	nil	nil	nil
Total as above				561,832	96,821	45,843.09	310.738

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LEAD PLANT

SHIPMENTS - Continued

Dross Reverberatory Speiss

In January 1958 seven lots, 407 wet tons or 395 dry tons, of Dross Reverberatory Speiss were settled for by The Anaconda Company at Anaconda, Montana.

Schedule for settlement of Speiss is as follows:

Material	- Crushed speiss free of large pieces, skulls, or extraneous material. Speiss should be ½" or smaller.
Delivery	- F.o.b., Anaconda, Montana. In open flat bottom, drop bottom cars.
Payment for Metals	- Copper - 94% at New York Electrolytic Price. Silver - 96% at Mint Price. Gold - 94% at $34.9125 per ounce.
Treatment Charge	- Speiss at $30.00 per dry ton f.o.b., Anaconda, Montana. The treatment charge was increased from $20.00 to $30.00 per dry ton effective August 1, 1956. The above increase was authorized in a letter dated August 24, 1956, from Mr. W. E. Mitchell, Manager of Anaconda Reduction Department, to Mr. F. A. Wardlaw, Jr., General Manager of International Smelting and Refining Company.
Sampling and Weighing	- Speiss to be weighed and automatically sampled at Tooele, Utah. Duplicate pulps to be sent to Anaconda, Montana for assay. All cars will be reweighed and check sampled for moisture at Anaconda, Montana. In case of wide disagreement of Tooele and Anaconda wet weights indicating loss of material in transit, the Anaconda dry weight, based upon this weight and moisture, will be used as a basis for settlement.
Settlement	- Settlement to be based upon weights as above and comparison of assays by Tooele and Anaconda on duplicate Tooele sample pulps, using the following splitting limits: Copper - 0.30% Silver - 0.50 ozs. per ton Gold - 0.005 ozs. per ton In the event results do not agree within these limits, both parties will repeat their assays. If repeat results are not within limits, the reserve sample will be sent to another laboratory of the Company as an umpire.

All seven lots were audited in detail for weights, moistures, assays, and net amount received on these lots in January 1958.

In lot No. S-142 the original assay on copper was not within the splitting limits. Repeat assays were reported and they were not within the splitting limits. The average of the repeat assays was used for the settlement. It is the Auditor's opinion that an umpire assay should have been asked for and reported as stated in the above schedule for settlement.

Dross Reverberatory Matte settled for by The Anaconda Company at Anaconda, Montana

In January 1958 two lots, 119 wet tons, or 104 dry tons, of Dross Reverberatory Matte were settled for by The Anaconda Company at Anaconda, Montana.

Schedule for settlement of Matte is the same as settlement for Speiss with the following exceptions:

Material	- Matte should be 2 inch or smaller.
Treatment	- Matte at $20.00 per dry ton f.o.b., Anaconda, Montana. The treatment charge was raised from $13.00 to $20.00 as stated in letter dated August 24, 1956, to Mr. F. A. Wardlaw, Jr. from Mr. W. E. Mitchell.

The two lots were audited in detail for weights, moistures, assays, and net amount received and found to be correct.

Lead Bullion Shipped to American Smelting and Refining Company, Omaha, Nebraska

The lead bullion is shipped to the American Smelting and Refining Company at Omaha, Nebraska. The contract was dated May 27, 1946 for a ten year period commencing June 15, 1946 and expiring June 14, 1956. This contract has been extended to December 31, 1961 as stated in a letter dated December 1, 1950. The above letter was from the American Smelting and Refining Company, signed by Mr. J. D. MacKenzie, Vice President, to International Smelting and Refining Company, confirmed by Mr. Frederick Laist, Vice President. The silver contained in all lead bullion delivered shall be returnable at 100% within 40 days after receipt at Omaha, Nebraska. 99.5% of the gold is paid for at $34.9125 per ounce. A quantity of refined lead equivalent to 100% of lead content less 8 pounds per ton of lead bullion is returnable within 20 days after receipt at Omaha, Nebraska. The refined lead must not contain more than .1% bismuth. The bismuth contained in all lead bullion delivered is returnable at 90% of content over .25% within 40 days. The splitting limit on silver is still .3 ounces up to and including 100 ounces and .4 ounces for bullion over 100 ounces as reported in an exchange of letters dated June 1, 1948, between Mr. Carl Gall, Manager of the Omaha Plant and Mr. Carlos Bordwell, Superintendent of the Tooele Plant. The supply differential was amended in an exchange of letters dated May 23, 1952, between Mr. J. D. MacKenzie, Vice President of American Smelting and Refining Company and International Smelting and Refining Company approved by Mr. E. O. Sowerwine, Vice President.

PNYC 00012323

LEAD PLANT

SHIPMENTS - Continued

Lead Bullion Shipped to Omaha - Continued

"Supply Differential: This differential shall be based upon the arithmetical average of the indices for (a) fuel, powe[r] and lighting materials, (b) chemicals and allied products, (c) metals and metal products, and (d) nonmetallic mineral[s] structural, as published by the Bureau of Labor Statistics of the United States Department of Labor, in respect to lead bullion delivered on and after February 1, 1952. Any time the arithmetical average of these indices shall excee[d] 67.4, the refining charge hereinabove specified shall be increased six cents (6¢) per ton of lead bullion for each one-point increase in said average index above 67.4 fractions in proprotion. In applying this differential, the average index to be used in respect to lead bullion delivered during any calendar month shall be the average index for the next - preceding calendar month."

The supply differential for January 1958 was $3.648.

A 5% freight increase effective December 28, 1956 was granted the railraods as per letter dated January 2, 1957, to Mr. Rom Warburton, Cashier, from Mr. G. A Burt, Assistant to the Manager. Another 7% increase effective August 26, 1957 was granted in a letter dated August 28, 1957 to Mr. Rom Warburion from Mr. F. G. Cunard, Assistant Ore Buyer. The two increases make a total of a 12% freight increase plus 3% tax on lead bullion. Tooele, Utah to Omaha, Nebraska, a total of $21.03 rate plus 63¢ tax on lead bullion.

The preliminary and final settlements for January 1958 were audited in detail.

Hot Slag to the Slat Treatment Plant

The molten slag sent to the Slag Treatment Plant is computed by assuming no loss of iron and manganese at the blast furnace. The total treated iron plus manganese, including that in the cold dump slag, scrap iron and coke, less the production of iron and manganese in all materials except slag is the content of the slag. The monthly composite assays are used to arrive at contents. The cost is transferred to the Slag Treating Plant on the following schedule:

Zinc Charge	- Total zinc content of molten slag less 95% of all zinc from the Slag Treating Plant treated at the Lead Plant during the month plus cold slag zinc and toll zinc treated. 75% of this computed zinc content is paid for at 20% of the monthly average Prime Western price.
Treatment of Cold Slag Charge	- $7.00 per dry ton treated by blast furnace. The $7.00 per dry ton has not changed since the last audit.
Credit for further Treatment of Toll Zinc	- $5.75 per dry ton of toll material treated at the Lead Plant during the month.

MISCELLANEOUS INTERPLANT TRANSFERS

Lead Fume from Slag Treating Plant

This material enters the Sintering Plant change bins and becomes a part of the sintering mix. Actual car weights plus beginning inventories were used. Monthly composite assays were used.

Cadmium Calcine

This material is also a part of the sintering mix in the Sintering Plant change bins. This calcine is produced at the cadmium roasters after the fume is drawn off. The assays were from the month of November when the last assays were available.

Blast Furnace Flue Dust

Actual car weights plus beginning inventory was amount to sinter change bins for month. Month of December assays were used for metal calculations.

Blast Furnace Catcher Dust

The beginning inventory plus actual car weight was used as amount to sinter change bins. The January monthly assays were used.

All of the weights, moistures, and assays of the above materials were audited in detail.

Sinter to Blast Furnace

The product from the Sintering Plant is weighed by cars, adjusted by inventories at the blast furnace bins and the balance is included as part of the treatment at the blast furnace. A fixed moisture of .75% is used. Fixed loss percentages are used on each metal to arrive at the content of the sinter. Listed on the next page is a comparison on sinter shipped in January 1958.

PNYC 00012324

LEAD PLANT

MISCELLANEOUS INTERPLANT TRANSFERS - Continued

Sinter to Blast Furnace - Continued

	Lead	Copper	Zinc	Silver	Gold
Fixed Loss	2 %	.5 %	1.5 %	.5 %	1.0 %
Computed Loss	2.05 %	.369%	1.7 %	.749 %	1.005 %
Monthly Assay	34.00 %	2.80 %	11.20 %	26.33 oz.	.07 oz.
Computed Assay	27.587 %	2.325%	9.472 %	27.584 oz.	.0555 oz.
Monthly Weights	6,930,612 lbs.	570,773 lbs.	2,283,01. lbs.	268,365.10 oz.	713.466 oz.
Computed Weights	5,623,511 lbs.	473,942 lbs.	1,930,838 lbs.	281,149.96 oz.	565.674 oz.

FOUR DIVISIONS OF LEAD PLANT

Cadmium Roasters - run at intervals to produce cadmium fume
Sintering Plant - produces sinter for the blast furnace
Blast Furnaces - produces lead for drossing
Drossing Plant - draws off dross and pours lead bars

INVENTORIES

Following is a statement showing the details of the inventories on hand at January 31, 1958:

	%	Dry Weight	Lead		Copper		Silver		Gold	
Original Material:	H20	Pounds	Percent	Pounds	Percent	Pounds	Oz.per Ton	Ounces	Oz.per Ton	Ounces
In Stock Piles										
Custom Ores	6.363	5,137,397	8.320	427,447	.294	15,124	5.217	13,401.08	.1199	308.023
Iron Concentrates	4.493	36,636,825	.617	225,885	.199	72,952	2.425	44,423.36	.0538	986.166
Total	4.727	41,774,222	1.564	653,332	.211	88,076	2.768	57,824.44	.0620	1,294.189
Sintering Plant										
Ores	8.706	429,466	8.613	36,988	6.703	28,788	18.082	3,882.87	.2296	49.313
Concentrates	7.160	242,999	59.160	143,757	.533	1,294	45.725	5,555.61	.1320	16.038
Total	8.153	672,465	26.878	180,745	4.473	30,082	28.071	9,438.48	.1944	65.351
Blast Furnace Smelting										
Custom Slag	.990	2,521,327	3.985	100,484			1.157	1,458.55		
Total-Original Material	4.579	44,968,024	2.078	934,561	.263	118,158	3.056	68,721.47	.0605	1,359.540
Sinter:										
By-products:										
Sinter Cleanings, etc.	16.708	1,116,740	43.760	498,683	1.700	18,987	30.942	17,277.26	.0970	54.141
Lead Dross	1.880	29,440	56.600	16,664	22.000	6,477	63.950	941.34	.1500	2.208
Blast Flue Dust	6.477	736,660	27.224	200,547	6.315	46,521	16.126	5,939.64	.0447	16.465
Blast Furnace Cleanings		83,960	8.871	7,448	1.894	1,590	7.755	325.55	.0200	.837
Blast Earrings		106,220	12.800	13,596	1.600	1,700	9.780	519.42	.1200	6.373
Blast Bag House Fume	.623	1,018,060	33.295	338,963	.445	4,886	1.738	891.89	.0115	5.846
Total	8.360	3,091,080	34.483	1,065,901	2.582	79,801	16.755	25,895.10	.0556	85.870
Dross Reverb. Speiss:	2.866	449,460			54.233	243,756	91.215	20,498.68	.1898	42.649
Dross Reverb. Matte	9.126	432,213			21.572	93,237	14.843	3,207.73	.0205	4.421
Total - By-products	7.855	3,972,753	26.830	1,065,901	10.491	416,794	24.971	49,601.51	.0669	132.940
Grand Total	4.853	48,940,777	4.088	2,000,462	1.093	534,952	4.835	118,322.98	.0610	1,492.480
Finished Products:										
Lead Bullion		3,125,620	98.000	3,063,108			91.591	143,140.00	.3100	484.500
Grand total Material on Hand	4.575	52,066,397	9.725	5,063,570	1.027	534,952	10.043	261,462.98	.0759	1,976.980

At 8:00 A.M. on April 1 and May 1, 1958 the Auditor accompanied Messrs. James Lougy and Edson Porter on the taking of bin measurements at the Tooele Plant. The May 1st inventory was later checked back to the inventory work sheets. The Lead Plant has not been in operation since January 31, 1958.

LEAD DROSS

An estimated fifteen tons of lead dross was on hand at January 31, 1958. At May 1st inventory, the same amount was on hand.

BY-PRODUCTS

All by-products were checked from inventory work sheets to final inventory of ore on hand January 31, 1958.

VALUATION OF INVENTORIES

PNYC 00012325

Stockpiles and Stock Bins

Following is a statement showing the value of the stockpile and bin inventories on hand at January 31, 1958:

VALUE OF MATERIAL ON HAND - JANUARY 31, 1958

	Dry Weight Pounds	Lead Pounds	Lead Amount	Copper Pounds	Copper Amount	Silver Ounces	Silver Amount	Gold Ounces	Gold Amount	Net Amount
Ore, Etc., on Hand - 1-1-58										
In Stock Piles										
Custom	58,554,241	3,115,557	$129,796.63	141,371	$ 2,298.80	198,391.48	$ 65,529.12	1,770.457	$ 54,644.87	$252,269.42
In Bins										
Custom	5,294,845	943,516	88,275.19	56,564	3,433.25	41,301.23	13,329.87	168.101	5,206.99	110,245.21
Received:										
Custom	4,099,846	796,038	44,641.09	294,355	55,700.96	57,833.51	49,748.61	95.366	3,035.45	153,126.11
Material from:										
Sulphide Concentrator	7,949,711	733,463	92,808.93	20,244	1,647.03	24,533.27	22,310.73	93.316	2,959.43	113,807.26
Slag Treatment Plant	880,520	410,509	32,641.07	176		3,166.91	2,764.71	4.405	144.55	35,550.33
	60,880,141	5,999,083	$388,162.91	512,242	$ 63,080.04	325,276.40	$153,683.04	1,945.013	$ 60,072.34	$664,998.33
Ore, Etc., on Hand - 1-31-58										
In Stock Piles										
Custom	41,774,222	653,332	$ 70,793.33	88,076	$ 621.22	57,824.44	$ 18,893.37	1,294.189	$ 39,883.39	$ 11,395.35
In Bins										
Custom	3,193,802	281,229	20,636.50	30,082	2,085.83	10,897.03	3,167.13	65.351	2,026.98	27,916.44
	44,968,024	934,561	$ 50,156.83	118,158	$ 2,707.05	68,721.47	$ 22,060.50	1,359.540	$ 41,910.37	$ 16,521.09
Put Into Process	15,912,117	5,064,522	438,319.74	394,084	60,372.99	256,554.93	131,622.54	585.473	18,161.97	648,477.24
Ore in Process - 1- 1-58	1,156,700	363,242	27,888.72	36,540	5,112.79	17,426.92	5,807.32	31.174	965.60	39,774.43
Ore in Process - 1-31-58	nil									
Decrease	1,156,700	363,242	27,888.72	36,540	5,112.79	17,426.92	5,807.32	31.174	965.60	39,774.43
By-products on Hand - 1- 1-58	5,637,104	1,498,288	64,901.19	418,431	38,040.35	56,710.43	19,064.07	159.015	5,082.14	127,087.75
By-product on Hand - 1-31-58	3,972,753	1,065,901	17,257.29	416,794	41,876.99	49,601.51	16,637.05	132.940	4,248.77	80,020.10
Decrease	1,664,351	432,387	$ 47,643.90	1,637	$ 3,836.64	7,108.92	$ 2,427.02	26.075	$ 833.37	$ 47,067.65
Total Treatment	18,733,168	5,860,151	$513,852.36	432,261	$ 61,649.14	281,090.77	$139,856.88	642.722	$ 19,960.94	$735,319.32
Ore, Etc., on Hand - 1-31-58										
In Stock Piles										
Custom	41,774,222	653,332	$ 70,793.33	88,076	$ 621.22	57,824.44	$ 18,893.37	1,294.189	$ 39,883.39	$ 11,395.35
In Bins										
Custom	3,193,802	281,229	20,636.50	30,082	2,085.83	10,897.03	3,167.13	65.351	2,026.98	27,916.44
By-products	3,972,753	1,065,901	17,257.29	416,794	41,876.99	49,601.51	16,637.05	132.940	4,248.77	80,020.10
Total	48,940,777	2,000,462	$ 32,899.54	534,952	$ 44,584.04	118,322.98	$ 38,697.55	1,492.480	$ 46,159.14	$ 96,541.19
Reduction Expenses										721.32
Cadmium Plant Expense										6,466.75
Total - Lead Plant Inventory Cost										$103,729.26
Cost of Finishing Lead in Wells, Kettles, Etc. - 147.89 tons @ $1.7589										$ 260.12
Reconcilement:										
Inventory		2,000,462		534,952		118,322.98		1,492.480		
Add - Losses Deferred		Nil		Nil		Nil		Nil		
Total as Above		2,000,462		534,952		118,322.98		1,492.480		

PNYC 00012326

LEAD PLANT

VALUATION OF INVENTORIES - Continued

Stockpiles and Stock Bins - Continued

The lots are added at actual costs and charges, but the gold cost is divided by $34.91 to arrive at a new paid-for ounces figure. All gold paid-for ounces go to stockpiles and stock bins at $34.91 per ounce. Month end inventories of all lots are recapped and silver and gold total paid-for ounces are revalued at 34.75 cents and $34.00 per ounce. The treatment absorbes the differeone. Therefore, the individual stockpile records carry actual costs with gold at $34.91 per ounce. The total inventory as used on statements is revalued for both silver and gold. This is useful when lots are transferred between plants, because original costs are then needed. When lots are taken out of stockpiles and stock bins, they are given average contents and values.

Actual freight, refining charges, zinc costs, and treatment charges are used as totaled on stockpile recap sheets.

In-Process Inventories

The Lead Plant completed operations at 8:00 A.M. on January 31, 1958 All of the material in the circuit was cleaned up and nothing remained in process.

There are two schedules used to value the by-product inventory. One is to value the Dross Reverbatory Matte and Speiss. The other is to value the balance of the by-products.

The Matte and Speiss schedule is the same as the schedule for Matte and Speiss shipped to The Anaconda Company.

The balance of the by-products are valued as follows: Lead is 95 percent paid for after a one percent deduction. The "normal base" method is applied to the lead valuation. Copper is 92½ percent paid for with a minimum eight pound per dry ton deduction. The "normal base" method is applied to copper valuation. Silver is 97 percent at 34.75¢ per ounce. Gold is 94 percent at $34.00 per ounce. The treatment charge is $12.27 per dry ton. Metal deductions, lead 2.2565¢ and copper 3.8565¢. Credit iron and lime at 8¢ per unit. Charge insoluble at 10¢ per unit. Sulphur, 2 percent free. charge balance at 15¢ per unit or minimum $2.25 per dry ton. Charge zinc at 15¢ per unit. Charge arsenic at 75¢ per unit.

Finished Material

The lead bullion is valued in New York but any lead bullion on hand in wells and kettles is credited with cost to finish - drossing expense. This credit remains on the Salt Lake statements until the following month. The $1.7589 per ton fixed cost is the same as it was at time of last audit. It is assumed that the New York Office uses this credit when valuing this lead inventory.

PNYC 00012327

SLAG PLANT

RECEIPTS

Following is a statement of customs material received for the month of January 1958:

	% H2O	Dry Weight Pounds	Lead Per Cent	Lead Pounds	Copper Per Cent	Copper Pounds	Zinc Per Cent	Zinc Pounds	Silver Oz. per Ton	Silver Ounces	Gold Oz. per Ton	Gold Ounces	Cost
U.S. Sm. Ref. & Mng. Co. Slag	1.462	15,297,083	.9746	149,085	.260	39,772	10.06075	1,539,001	.130	994.31		Tr	$12,722.96
Bethlehem Pacific Coast Steel Corp. Residue	5.540	251,377	6.200	15,586	.328	824	29.956	75,303	3.375	424.24		Tr	1,500.89
Columbia Geneva Steel Division Residue	12.400	129,157	8.700	11,237	.300	387	45.500	58,766	5.950	384.24		Tr	1,398.51
Total Purchased Ore	1.631	15,677,617	1.122	175,908	.261	40,983	10.672	1,673,070	.230	1,802.79			$15,622.36

United States Smelting, Refining and Mining Company - Midvale, Utah

Fourteen lots of slag, 7,649 dry tons, were received in January 1958. The total dry tons received was composed of 4,573 dry tons of current slag and 3,076 dry tons of dump slag. The settlement was calculated on the contract as follows:

July 1, 1956 through June 30, 1959.

Quantity - Buyer's requirements

Delivery - F.o.b. cars, Midvale, Utah

Current Production of Slag

Lead - Pay for wet lead in excess of 0.90% at rate of 60¢ per unit.

Zinc - Pay 60¢ per dry ton of slag when zinc content is 8% and East St. Louis Prime Western Zinc price for calendar month of receipt is 11¢ per pound.

For each 1% increase or decrease in zinc content, add or subtract at the rate of 60¢ per unit.

For each 1¢ increase or decrease in zinc price, add or subtract at the rate of 60¢ per ton.

Minimum payment 60¢ per dry ton.

Reduction in payment for cost of employment.

Period	To and Including	Amount
7-1-56	6-30-57	$ 0.32
7-1-57	6-30-58	0.51
7-1-58	6-30-59	0.70

Minimum payment for slag $0.60 per ton.

Stockpile Dump Slag

Terms same as current production except International Smelting and Refining Company pays United States Smelting, Refining and Mining Company 40¢ per dry ton of dump slag for loading at Midvale, Utah.

Splitting limits

Lead - 0.20% Zinc - 0.30%

PNYC 00012328

SLAG PLANT

RECEIPTS - Continued

United States Smelting, Refining and Mining Co. - Continued

Assays - If assays fail to agree within splitting limits, repeat assays shall be made by each party. If repeat assays agree within splitting limits, the average of the repeat assays shall be used for settlement. If the repeat assays do not agree within splitting limits, settlement samples shall be exchanged and assayed. If assays on exchanged samples agree within splitting limits, the average assays of the exchange samples shall be used for settlement. If the assays on exchanged samples do not agree within splitting limits, then the average of the repeat assays and the assays of the exchanged samples shall be used for settlement.

Freight - 7/1/56 - 70¢ plus 3% and moisture (Use 73¢) for buyer's account.

All scale tickets to lot sheets were audited in detail for January 1958. 50% of moistures to lot sheets were audited in detail for January 1958. 50% of dry weights were audited in detail. The settlement was audited and checked to metallurgical cost sheets.

Bethlehem Pacific Coast Steel Corporation - Los Angeles, California

Two lots of residue, 126 dry tons, were received in January 1958. The settlement was calculated on the following contract:

Period	- 30 days cancellation notice.
Tonnage	- Current production plus and minus 280 tons per month, spaced about one car every six days.
Lead	- Deduct 30 pounds, 80% at New York price, less 10.1585¢ per pound.
Zinc	- 75% of zinc at 50% of East St. Louis price.
Treatment	- $12.663 per net dry ton, f.o.b. International.
Variables	- Labor - $18.773 plus and minus 17¢ each 25¢ Coke - $25.06 plus and minus 15¢ each 25¢ Bullion Freight - $29.63 (tax included) shipper's account
Smelter assays and sample	

One lot or 50% of the receipts was audited in detail for the month of January 1958.

Columbia Geneva Steel Division - Torrance, California

In January 1958 one lot of zinc residue, 65 dry tons, was received. The settlement was calculated on the following contract:

Lead	- Deduct 30 pounds, pay 80% at New York price, less 10.1585¢.	
Zinc	- 75% at 50% East St. Louis price (no pay if under 10% zinc).	
Treatment	- $13.982	
Excess Iron	- Charge excess iron over insoluble at 40¢ per unit.	
Variables	- Labor	- $18.773 plus and minus 20¢ each 25¢
	Coke	- $25.06 plus and minus 15¢ each $1.00
	Bullion Freight	- $29.63 - shipper's account.
Smelter sample and assays		

The one lot was audited in detail for the month of January 1958.

Blast Furnace Slag (Moulten)

In January 1958, 6,543 dry tons of moulten slag was received at the Slag Plant from the Blast Furnace.

Blast Furnace Slag Reclaimed From Dump (Cold)

In January 1958, 79 dry tons of cold slag was received at the Slag Plant.

SHIPMENTS

Following is a statement of cost treatment - production and losses, etc., for the month of January 1958:

Statement of Cost - Treatment - Production and Losses - Value of Production - Profit or Loss - January 1958

Fuming Furnace:	Dry Weight Pounds	Cost of Material	Reduction Expenses: Sampling Cost	Reduction Expenses: Fuming Cost	Reduction Expenses: Total	Cost Per Ton	Grand Total	Lead Pounds	Copper Pounds	Zinc Pounds	Silver Ounces	Gold Ounces
On Hand - 1-1-58												
Ore in Bins	124,319	$ 1,254.99	$ 41.55					9,874	373	53,446	342.24	
Custom Slag	431,855	287.35	144.33					3,995	1,036	42,094	30.23	
Total on Hand Beginning	556,174	$ 1,542.34	$ 185.88					13,869	1,409	95,540	372.47	
Received:												
Ore	380,534	2,899.40	4,564.14					26,923	1,211	134,069	808.48	
Custom Slag	15,297,083	12,722.96						149,095	39,772	1,539,001	994.31	
Blast Furnace Slag (Molten)	13,085,200	20,657.57						210,672	36,639	2,028,206	1,570.22	4.580
Blast Furnace Slag (Cold)	158,000							2,103	1,484	10,904	155.79	
Total on Hand Beginning & Receipt	29,476,991	$37,822.27	$ 4,750.02					402,552	80,515	3,807,720	3,901.27	4.580
On Hand - 1-31-58												
Custom Slag	3,232,623	2,540.43	937.46					31,505	8,405	325,226	210.12	
Treated - Original Material:	26,244,368	$35,281.84	$ 3,812.56	$ 82,070.56	$ 85,883.12	$ 6.5449	$121,164.96	371,047	72,110	3,482,494	3,691.15	4.580
Production - Fuming Furnace												
On Hand - 1-31-58	1,775,460			33,303.99	33,303.99	37.5159	33,303.99	238,875	2,465	916,723	1,397.49	5.239
Shipments:												
Raw Fume to Deleading Plant	4,312,491	35,281.84	3,812.56	86,645.64	90,458.20	41.9517	125,740.04	287,751	176	2,816,496	2,758.10	3.132
Total on Hand & Shipments	6,087,951	$35,281.84	$ 3,812.56	$119,949.63	$123,762.19	$40.6581	$159,044.03	526,626	2,641	3,733,219	4,155.59	8.371
On Hand - 1-1-58	1,509,460			37,879.07	37,879.07	50.1889	37,879.07	184,718	2,149	767,914	1,048.85	3.250
Produced at Fuming Furnace	4,578,491	$35,281.84	$ 3,812.56	$ 82,070.56	$ 85,883.12	$37.5159	$121,164.96	341,908	492	2,965,305	3,106.74	5.121
Losses								29,139	71,618	517,189	584.41	.541

Deleading Plant:	Dry Weight Pounds	Cost of Material	Reduction Expenses: Sampling Cost	Reduction Expenses: Fuming Cost	Reduction Expenses: Deleading Cost	Reduction Expenses: Total	Cost Per Ton	Grand Total	Lead Pounds	Copper Pounds	Zinc Pounds	Silver Ounces	Gold Ounces
Cost of Production													
Raw Fume	4,312,491	$35,281.84	$ 3,812.56	$86,645.64	$16,103.94	$106,562.14	$49.4202	$141,843.98	287,751	176	2,816,496	2,758.10	3.132
Value of Production - (sold)													
Leaded Zinc Oxide to various Companies - Correction								25.41					
Lead Fume to Lead Plant	880,920							35,550.33	410,509	176		3,166.91	4.405
Deleaded Zinc Fume to:													
Anaconda, Montana	790,755							30,432.39			619,694	86.98	
National Zinc Co.	3,046,580							100,101.98			2,321,909		
Returned to:													
Am. Zn. Co. Illinois	328,630										242,283		
Total	5,046,885							$166,059.29	410,509	176	3,183,886	3,253.89	4.405

PNYC 00012330

SLAG PLANT

Tooele Slag Treatment Plant - Statement of Cost - Etc. - January 1958 - #2

Deleading Plant: - Continued	Dry Weight Pounds	Grand Total	Lead Pounds	Copper Pounds	Zinc Pounds	Silver Ounces	Gold Ounces
Value of Production							
On Hand - 1-31-58							
Leaded Zinc Oxide Consigned	54,000	$ 2,115.18	25,654			105.29	.246
Leaded Zinc Oxide at Plant	299,980	12,036.92	143,992			1,041.85	1.161
Deleaded Zinc Fume In Transit to Anaconda	163,378	6,265.87			127,108		
Deleaded Zinc Fume:							
In Transit to National Zinc Co.	2,566,920				1,967,269		
At Plant	207,458				158,213		
	2,774,378	92,018.33					
Value of Zinc Fume returned in excess of returnable zinc in treatment		416.42					
Total on Hand Ending and Sales	3,338,621	$278,912.01	580,155	176	5,436,476	4,401.03	5.812
On Hand - 1-1-58							
Leaded Zinc Oxide Consigned	54,000	$ 2,115.18	25,654			105.29	.246
Leaded Zinc Oxide at Plant	554,420	22,079.31	266,750			1,537.64	2.434
Deleaded Zinc Fume in Transit to Anaconda	277,373	10,711.67			216,351		
Deleaded Zinc Fume:							
In Transit to National Zinc Co.	3,032,962				2,321,404		
At Plant	107,375				82,225		
	3,140,337	103,867.48					
Value of Zinc Fume returned in excess of returnable zinc in treatment		9,591.33					
Total on Hand Beginning	4,026,130	$148,364.97	292,404		2,619,980	1,642.93	2.680
Value of Production							
Deleaded Zinc Fume	3,686,011	105,064.51			2,816,496	86.98	
Lead Fume	626,480	25,482.53	287,751	176		2,671.12	3.132
Total Value of Production	4,312,491	$130,547.04	287,751	176	2,816,496	2,758.10	3.132
Tolls Earned		7,943.59					
Total Value		$138,490.63					
Profit or Loss		$ 3,353.35					
Division of Profit or Loss							
Darwin Mines	$ 1,855.19						
Shoshone Mines	175.21						
Other Custom Ores	4,115.04						
American Zinc Company of Illinois-(toll)							
Regular	2,030.54						
Leach Residue	411.13	$ 3,353.35					

PNYC 00012331

SLAG PLANT

SHIPMENTS - Continued

Deleaded Zinc Fume Settled for by the National Zinc Company - Bartlesville, Oklahoma

Twenty-one lots, 1,593 dry tons, of deleaded zinc fume were settled for in January 1958. Thirty-seven percent of the settlements were audited in detail. At January 31, 1958, 1,233 dry tons of deleaded zinc fume were in transit to Bartlesville, Oklahoma.

The contract for settlement of deleaded zinc fume is as follows:

Zinc - 87% East St. Louis - Prime Western Zinc. Less 0.4223¢ per pound.
(3.5¢ per pound - East St. Louis - Prime Western Zinc - plus or minus $1.75 per ton for each 1¢ change in zinc quotation.

Freight - $14.95 plus 3% tax.

Treatment - $50.00 per dry ton of deleaded zinc fume.

Contract extended and cost of employment figure stated in a letter dated January 24, 1957, to the National Zinc Company from Mr. R. B. Caples.

"It is our mutual desire that the agreement of November 13, 1956 be extended from April 1, 1957 through September 30, 1957, inclusive, and thereafter until cancelled by either of us giving 30 days prior notice of desire to cancel. The same provisions for settlement for the deleaded zinc fume delivered to you as set forth in the agreement of November 13, 1956, will apply to all of the deleaded zinc fume delivered under the extension of said agreement, except that the following paragraphs will be added following the third paragraph of the agreement written."

"The foregoing treatment charge is based upon the cost of employment at your Bartlesville, Oklahoma Plant of $18.612 dollars per eight hour day. Should the cost of employment at Bartlesville vary from $18.612 dollars, there shall be added to or subtracted from the base treatment charge of $50.00, per short ton of deleaded fume, 1.5¢ per ton for each 1¢ per day above or below dollars per day, as the case may be. The cost of employment to be used in making settlement for deleaded zinc fume delivered at Bartlesville during any calendar month, of this extension to the agreement of November 13, 1956, shall be the average cost of employment for the calendar month preceding the month of delivery of the fume."

Deleaded Zinc Fume Settled for by The Anaconda Company - Anaconda, Montana

One lot, 395 dry tons, of deleaded zinc fume and an adjustment to a previous lot was audited for the month of January 1958. At January 31, 1958, 82 dry tons of deleaded zinc fume was intransit to Anaconda, Montana.

The contract for settlement of deleaded zinc fume is as follows:

Zinc - 90% East St. Louis - Prime Western Zinc.

Treatment - $57.00 per dry ton f.o.b., Black Eagle, Montana when the price for Prime Western Zinc at East St. Louis is 10¢ per pound, and cost of employment in the Zinc Plant of The Anaconda Company is $17.00 per 8 hour day.

For each variation of 1¢ in the price for Prime Western Zinc above or below 10¢ per pound, add or subtract $2.75 to the base treatment charge per ton of fume - fractions in proportion.

For each variation of 1¢ in the cost of Employment per 8 hour day above or below $17.00, add or subtract 1.5¢ per ton to the base treatment charge - fractions in proportion.

INVENTORIES

Zinc

Following is a statement of ore, etc., on hand and value as at January 31, 1958:

PNYC 00012332

Ore, Etc. on Hand and Value - January 31, 1958

Original Materials	% H2O	Dry Weight Pounds	Lead Per Cent	Lead Pounds	Copper Per Cent	Copper Pounds	Zinc Per Cent	Zinc Pounds	Silver Oz. per Ton	Silver Ounces	Gold Oz. per Ton	Gold Ounces	Sales Value	Reduction Expenses	Cost of Material	Sampling	Total
At Plant																	
Custom Slag	1.632	3,232,622	.9746	31,505	.260	8,405	10.05075	325,226	.130	210.12			$	$	$2,540.43	$937.46	$ 3,477.89
In Process:																	
At Plant																	
Furnace Fume		850,300	7.063	60,074	.154	1,311	59.040	502,137	1.147	487.78	.0050	2.126					
Flue Cleanings	6.252	425,160	4.043	17,201	.200	850	48.750	207,265	.810	172.11	.0050	1.063					
Lead Flue Cinges		500,000	32.320	161,500	.061	304	41.468	207,340	2.950	737.60	.0082	2.050					
Total	1.571	1,775,460	13.454	238,875	.139	2,465	51.633	916,723	1.574	1,397.49	.0059	5.239		33,303.99			33,303.99
Total-Original & In Process Mat'l	1.611	5,008,083	5.399	270,380	.217	10,870	24.759	1,241,949	.642	1,607.61	.0021	5.239		$33,303.99	$2,540.43	$937.46	$ 36,781.88
Finished Products:																	
Leaded Zinc Oxide																	
Consigned to Various Companies #		54,000	47.507	25,654	.020		21.948		3.900	105.29	.0091	.246	2,115.18				
At Plant #	.240	299,980	48.001	143,992	.020		16.716		6.946	1,041.85	.0077	1.161	12,036.92				
Total	.119	353,980	47.925	169,646	.020		17.514		6.482	1,147.14	.0079	1.407	$ 14,152.10				
Deleaded Zinc Fume ###																	
Intransit to National Zinc Company	1.375	2,566,920	.720		.150		76.639	1,967,269	.305								
At Plant	.890	207,453	.535		.150		76.263	158,213	.299								
Total	1.339	2,774,378	.707		.150		76.611	2,125,482	.305				92,018.33				
Intransit to The Anaconda Co. - Anaconda ####	.670	163,378	.400		.150		77.800	127,108	.200				6,265.87				
Total-Deleaded Zinc Fume	1.302	2,937,756	.690		.150		76.677	2,252,590	.299				$ 98,284.20				
Total Finished Products	1.176	3,291,736	5.154	169,646	.136		68.432	2,252,590	.697	1,147.14	.0009	1.407	$112,436.30				112,436.30
Grand Total - Material on Hand	1.439	8,299,819	5.302	440,026	.131	10,870	42.104	3,494,539	.664	2,754.75	.0016	6.646	$112,436.30	$33,303.99	$2,540.43	$937.46	$149,218.18
																	416.42
																	$149,634.60

113,560 Dry Pounds - Estimated value of Deleaded Zinc Fume returned to The American Zinc Company of Illinois in excess of returnable Zinc in Toll residue treated

PNYC 00012333

SLAG PLANT

INVENTORIES - Continued

Bins - Continued

There were 1,616 dry tons of custom slag on hand. All the measurements, computation, assays, and values were audited in detail.

VALUATION OF INVENTORIES

The leaded zinc oxide, 150 dry tons, at the Plant is valued at sales terms of lead fumes sent to the Lead Plant, except silver which is 97% at 24.75¢ per ounce. The consigned stock, 27 dry tons, is valued the same way as is the leaded zinc oxide on hand.

The deleaded zinc fume, 104 dry tons on hand and 1,283 dry tons in-transit to National Zinc Company, is valued the same as the lots settled for in January 1958. The treatment rate used in this calculation is the last lot settled for in January 1958.

The deleaded zinc fume, 82 dry tons in-transit to The Anaconda Company, is valued at the same contract as deleaded zinc fume settled for by The Anaconda Company.

The value of slag on hand at January 31, 1958 was understated $26.47. The current slag rate was applied to the dump slag and vice versa. The Auditor is also of the opinion that the formula for determining the dump slag rate is wrong. The following schedule illustrates this error:

	Dry Pounds	Dry Tons	Rate	Amount	Loading Rate	Amount	Freight	Total
Current Slag	9,145,684	4,572.8420	0.771	3,525.66				
Dump Slag	6,151,399	3,075.6995	0.771	2,371.37	0.40	1,230.28		
Total	15,297,083	7,648.5415		$ 5,897.03		$ 1,230.28	$ 5,595.66	$12,722.97

Current Slag Rate Formula:

$$\frac{\$12,722.97 \text{ less } \$1,230.28}{15,297,083} = .000751299$$

Dump -- Slag Rate Formula:

$$\frac{\$12,722.97}{15,297,083} = .00831725$$

It is apparent from the preceding that the dump rate formula does not provide for the inclusion of 100% of the loading amount in the rate, although excluded 100% in the current slag rate. This is illustrated by the following schedule:

Current Slag:		
Amount	$ 3,525.66	
Freight	3,345.48 (1)	
Total	$ 6,871.14	/ 9,145,684 dry pounds equal $ .000751299 - agrees with formula
Dump Slag:		
Amount	$ 2,371.37	
Loading	1,230.28	
Freight	2,250.18 (1)	
Total	$ 5,851.83	/ 6,151,399 dry pounds equal $.000951301 - formula shown as $.00831725
	$ 12,722.97	

(1) Freight prorated to current slag and dump slag on basis of dry tons.

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SLAG PLANT

VALUATION OF INVENTORIES - Continued

Inventory January 31, 1958:

Shown as :				
Current Slag	- 1,389,566 dry pounds @ $ .000831725	equals	$	1,155.74
Dump Slag	- 1,843,057 dry pounds @ $ .000751299	equals		1,384.69
Total	3,232,623		$	2,540.43
Should be:				
Current Slag	- 1,389,566 dry pounds @ $ .000751299	equals	$	1,043.98
Dump Slag	- 1,843,057 dry pounds @ $ .000951301	equals		1,753.30
	3,232,623		$	2,797.28
Inventory Understated			$	256.85

Freight should be distributed to current slag and dump slag on the basis of wet weights on future calculations.

ERRORS AND DISCREPANCIES

LEAD PLANT

Receipts:

The following is of an informative nature rather than an error or discrepancy. The two lots used are examples of the method used in calculating dry weights of receipts. Due to the different method of calculating dry weights, there was a 20 pound difference on lot No. 1824 and a 15 pound difference on lot No. 1832 as explained below. On lot No. 1824, received in December 1957, zinc residue from American Zinc Company of Illinois, the calculated dry weight was 651,005 pounds. This lot was composed of five cars. The weighted average moisture, 8.81% moisture, was used in calculating the dry weight. A separate moisture was taken on each car. By calculating the dry weight on each car and totaling these dry weights, the dry weight is 651,025 pounds. Lot No. 1832, received in January 1958, was composed of five cars and the calculated dry weight was 656,359 pounds. By using the moisture on each car and calculating each car separately as on lot No. 1824, the total dry weight is 656,344 pounds. Lot No. 1832 was from the same shipper. It is the Auditor's opinion that the dry weight should be calculated on each car and the total of the dry weight of the cars in the lot should be the dry weight of the lot.

There is a considerable difference in the dry weights on arsenic residue shipped from Anaconda, Montana and the dry weights settled for by the International Smelting and Refining Company at Tooele, Utah. A comparison of weights and moistures on lot No. 1830 reveals the following information:

	Gross Weight	Tare Weight	Net Weight	% H2O	Dry Weight
Anaconda	1,903,160	518,900	1,384,260	16.55	1,155,148
International Smelting & Refining Co.	1,895,900	517,600	1,378,300	14.33	1,180,803
	7,260	1,300	5,960	-	(25,655)
	12.8275 dry tons @ $ 70.835 final value per ton			=	$ 908.64

A comparison of weights and moistures on six cars of lot No. 1846 reveals the following information:

	Gross Weight	Tare Weight	Net Weight	% H2O	Dry Weight
Anaconda	1,189,960	297,200	892,760	15.02	758,662
International Smelting & Refining Co.	1,187,160	297,140	890,020	9.77	803,030
	2,800	60	2,740	-	(44,368)
	22.184 dry tons @ $ 68.359 final value per ton			=	$1,516.48

LEAD PLANT

ERRORS AND DISCREPANCIES - Continued

The Auditor talked to Mr. Clyd Dalton, Head Sampler, and was informed that eight or nine 1¼" pipe samples are taken on each car of arsenic residue. The samples used are the full depth of the arsenic residue in each car. These samples of arsenic residue are received in the bucking room and emptied into a pan which is weighed. After a 24 hour drying period the pan is weighed again and a moisture is calculated. The above information is of an informative nature to point out the differences in weight and moisture calculations on arsenic residue received from Anaconda, Montana and settled by International Smelting and Refining Company.

Interplant Transfers:

On January 16, 1958, TV car 705, an error of 1,000 pounds in sinter to blast was recorded. The difference in weights is as follows:

	Gross	Tare	Net
As shown	151,440	40,260	110,180
Should be	151,440	40,260	111,180
Difference	-	-	1,000

The net weights on sinter shipped should be 20,539,780 pounds instead of 20,538,780 pounds in January 1958.

Inventories

On March 21, 1958, Messrs. Earl House, Plant Engineer, D. R. Eamon and R. E. Hathaway, while on a tour of the Tooele Plant, noted that 19 lead bars were on hand at the Dross Plant. This quantity was later checked to inventory records at February 1, 1958 which showed 12 bars on hand. The Auditor accompanied James Lougy, Metallurgical Clerk, and Dixon Porter, Clerk, on an inventory trip of the Tooele Plant on April 1, 1958. The six lead bars in the molds and twelve bars in stockpile were checked at the time of this inventory observation. The six bars in the molds were inadvertentally overlooked at the time of February 1st, and March 1st, inventory time. The on hand inventory of February 1st would have been reported as follows:

	Dry Weight Pounds	Lead Per Cent	Lead Pounds	Bismuth Per Cent	Bismuth Pounds	Silver Ounces Per Ton	Silver Ounces	Gold Ounces Per Ton	Gold Ounces
As shown	156,000	98.00	152,880	.327	510	89.00	6,942.00	.365	28.500
Should be	204,000	98.00	199,920	.327	667	89.00	9,078.00	.365	37.200
Difference	48,000	98.00	47,040	.327	157	89.00	2,136.00	.365	8.700

An adjustment was made on March Cost Sheets.

GENERAL COMMENTS

Sulphide Concentrator

The Sulphide Concentrator is in operation producing zinc concentrates and lead concentrates. The zinc concentrates are shipped to Anaconda, Montana. The lead concentrates are shipped to East Helena, Montana.

Lead Plant

The Lead Plant discontinued operation at 8:00 A.M. on January 31, 1958. The number 3 blast furnace has been rebuilt with a thirty inch extension added. It can be ready for production with a few finishing touches. The number 1, 4, and 5 blast furnaces have been dismantled. Number 2 furnace can be repaired and used as a standby.

Slag Treating Plant

The Slag Treating Plant is in operation producing deleaded zinc concentrates, baghouse fumes, and slag. The deleaded zinc concentrates are shipped to the National Zinc Company, Bartlesville, Oklahoma. The baghouse fumes are shipped to East Helena, Montana. Slag is taken to the slag pile at the Tooele Plant.

Only a few errors and discrepancies were uncovered during the audit. The Metallurgical Staff was very co-operative and their work was neat and accurate.