

THE UNION PACIFIC COAL COMPANY

ANNUAL REPORT OF ASSISTANT GENERAL MANAGER

YEAR ENDING DECEMBER 31st
1932

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No. 17*

THE UNION PACIFIC COAL COMPANY

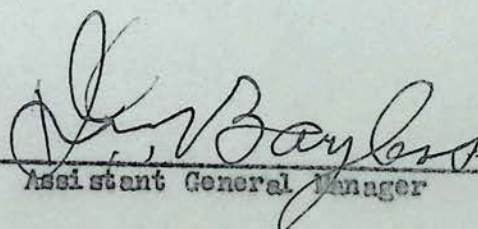
ANNUAL REPORT

OF

ASSISTANT GENERAL MANAGER

YEAR ENDING DECEMBER 31, 1932.

ROCK SPRINGS, WYOMING


Assistant General Manager

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ANNUAL REPORT

of

I. N. Bayless, Assistant General Manager

Year Ending December 31, 1932

Labor relations continued good. A new wage agreement, effective July 1st, 1932, and extending through to April 30, 1933, was signed, which provided for a reduction of approximately twenty per cent. Although there was some talk of a strike, all of the employees of The Union Pacific Coal Company reported for work July 1st.

In line with this reduction, the rates paid for premium coal were also cut approximately twenty per cent.

Effective February 1st, 1932, all salaries of monthly employees were reduced ten per cent. Further economies were realized during the year by the reduction of the number of salaried employees, some positions being abolished and the work transferred to others. In some instances salaried employees at the mines were given work at a day wage rate, thus reducing the salaried staff.

In line with these economies, the position of Editress, held by Miss Eunice M. Gilbert, was abolished effective February 1st, 1932.

January 1st, 1932, an agreement was entered into with the Lion Coal Corporation, granting The Union Pacific Coal Company the right to mine all coal that can be safely and economically removed from a portion of Section 12, Township 19 North, Range 105 West of the 6th P. M., near Rock Springs, Wyoming, and also granting the use of certain mine openings for ventilation purposes. The coal is to be dumped over No. 8 Tipple at Rock Springs.

Due to a reduction in requirements for Railroad fuel, the production of all mining districts was 2,045,270.00 tons, a decrease of 408,257.24 tons, or 16.63% under that for the year 1931.

Working time, also, was affected, the average days worked by all mines for 1932 being 146.2 days, as compared with 183.9 days for 1931, a decrease of 37.7 days, or 20.50 per cent.

The purchase and installation of additional mechanical loading equipment was curtailed, due to the forced economic situation. Twelve new Cosco Shaking Conveyers were purchased, and, because of the closing of the Washington Union Coal Company's mines at Tono, Washington, there was purchased from it one Cosco shaking conveyor and four Red Devil pit car loaders (used equipment). This equipment was placed as follows: Rock Springs, 4 Coscos and 2 Red Devil pit car loaders; at Winton 2 Coscos; and at Superior 7 Coscos and 2 Red Devil pit car loaders.

The performance of mechanical loading devices with reference to the production of coal is shown in the following tabulation:

<u>Year</u>	<u>Total Tons Mined</u>	<u>Loaded Mechanically</u>	<u>Per Cent</u>
1920	3,069,379.20	51,098.00	1.66
1921	2,984,534.00	62,894.00	2.11
1922	2,253,773.95	46,003.00	2.04
1923	3,241,104.85	107,693.00	3.32
1924	2,821,677.80	161,245.00	5.71
1925	2,779,064.54	265,432.00	9.55
1926	2,776,245.45	601,611.15	21.67
1927	2,750,430.20	1,107,775.85	40.28
1928	2,927,389.85	1,501,577.70	51.29
1929	3,060,632.25	1,774,279.65	57.97
1930	2,897,653.25	1,721,659.70	59.42
1931	2,453,527.24	1,800,651.96 x	73.39
1932	2,045,270.00	1,659,148.81 x	81.12

x - 1931, includes 32,494.81 tons proportion of Company coal.
1932, includes 27,357.01 tons proportion of Company coal.

The method of paying a premium for all types of mechanical loaders, except the Vulcan scrapers, was continued during the year. The payment of premium for excess tonnage loaded with scraper loaders was discontinued April 1st, 1932, for the reason the working conditions at the different mines were so varied as not to allow for a uniform tonnage base.

Below is statement showing comparison of premium paid since the method was adopted. Figures reported represent all districts. The decrease in 1932 was due to decreased production and working time.

	<u>1930</u>	<u>1931</u>	<u>1932</u>
Shaking Conveyors	\$12,004.63 (8 months)	\$31,142.49 (1 year)	\$24,177.16 (1 year)
Scraper Loaders	None	1,200.91 (7½ months)	496.43 (3 months)
Joy Loaders	293.55 (7 months)	2,324.35 (1 year)	1,040.49 (1 year)
Pit Car Loaders	None	230.16 (1 year)	55.58 (1 year)
Total	\$12,298.18	\$34,897.91	\$25,769.66
Premium cost per ton, mechanically loaded coal	\$0.0071	\$0.0194	\$0.0155
Premium cost per ton, all coal loaded	\$0.0042	\$0.0142	\$0.0126

Pit car loaders at Rock Springs continued to operate on a contract basis, showing tons per man shift and wages earned above the average.

The cost per ton of mechanically loaded coal, all types of loaders, showed some progress, in spite of the fact that operations were very materially affected by the decreased demand for coal. Results from mechanical loaders at Hanna, both from a standpoint of cost and tons per man shift, were

very materially affected because of the difficult development program which it was necessary to undertake. Not much improvement at Hanna is anticipated during 1933.

A tabulation showing the placement of units by fields and types is also herewith presented for the purpose of bringing this information up to date:

LOCATION OF MECHANICAL LOADING UNITS
AS OF DECEMBER 31, 1932.

	<u>Rock Springs</u>	<u>Reliance</u>	<u>Winton</u>	<u>Superior</u>	<u>Hanna</u>	<u>Total</u>
Vulcan Scraper	3	1	2		1	7
Eickhoff, 25 H.P.	9		2	8	2	21
Eickhoff, 15 H.P.	2			3		5
Eickhoff, 5 H.P.			1	5		6
Cosco, 25 H.P.	12	9	17	14		52
Cosco, 15 H.P.				3		3
Cosco, 10 H.P.			2			2
Vulcan Conveyor, 25 H.P.				2		2
Button Conveyor (Homemade)					1	1
Northern, 3 H.P.	10					10
Northern, 1 H.P.	2			2		4
Northern, 3/4 H.P.	2			4		6
Red Devil, 3 H.P.	12	2	1	5		20
Jeffrey				1		1
Joy, 5 B.U.					8	8
Joy, 4 B.U.			4			4
Butler Shovel					2	2
Thew Shovel					4	4
Total	<u>52</u>	<u>12</u>	<u>29</u>	<u>47</u>	<u>18</u>	<u>158</u>

During the year two Mayer & Coulson shaking conveyors, one Northern pit car loader and two 4-B.U. Joy loaders were retired from service.

The Jeffrey pit car loader at Superior did not operate during the year.

The Vulcan Scraper, Thew shovels, Butler shovels and Button Conveyor at Hanna did not operate during the year.

Submitting herewith list of Non-Capital expenditures in each mining district for the year 1932:

Rock Springs District

<u>Non-Capital Expenditures</u>	<u>Cost</u>
<u>Mine Department</u>	
<u>No. 2 Mine, E Plane:</u>	
Shut down expenditures, cleaning caves, patrolling mine, outside watchman, and power for ventilation	\$ 3,536.80
<u>No. 4 Mine:</u>	
Built new sump and pump room	215.43
Extended sprinkling lines to take care of new development	478.00
Built overcast, 14 Entry	310.30
<u>No. 8 Mine:</u>	
Rebuilt stoppings in Section 12, Lionkol Mine, and provided drainage	908.27
Extended sprinkling lines	1,169.32
Drove entries through fault to work coal under lease with Lion Coal Corporation	698.00
Drilled hole from No. 3 Seam to No. 1 Seam in old Lionkol slope, to eliminate pumping	520.00
Rented equipment and provided labor for drainage in Lionkol workings prior to connections being made between No. 8 Mine and Lionkol Mine	900.00

All Mines:Cost

Purchased new electric cap lamps and made partial payment on additional lamps	\$ 1,267.30
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Real Estate Department

Redecorated interior Wardell Court tenements	1,422.22
Redecorated part of Old Timers' Building and Headquarters Building	437.43
Repainted exterior of 21 tenements	1,534.02
Reshingled 66 tenements	5,607.23

Roofs were in bad condition.

Purchased and planted trees	303.50
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Laid sewer and made sewer line connections to the No. 4 tenements and public buildings	1,121.48
---	----------

Connected a number of our No. 4 tenements,
the Community Hall, and Boarding House, to
city sewer system.

Disposed of Garbage	1,667.00
---------------------	----------

Repaired tenement fences	219.27
--------------------------	--------

Remodelled and repaired No. 4 Community Hall	1,291.94
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To provide a suitable meeting place for
Community work.

Power Plant

Made heavy repairs to turbines	3,076.06
--------------------------------	----------

Includes new high pressure head for
General Electric turbine.

Purchased new conveyor belt for coal to boilers to replace worn-out belt	<u>405.13</u>
---	---------------

Total, Rock Springs District	\$ 27,088.70
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CostReliance DistrictNon-Capital ExpendituresMine DepartmentNo. 4 Mine:

Built doors, regulators and stoppings, re-opening mine	\$ 1,833.28
Purchased new rope for slope	2,170.76
Cleaned rock, reopening No. 2 Slope	988.99
Moved motor-generator set from No. 1 Mine to No. 4 Mine	502.91

To centralize power distribution.

All Mines:

Purchased new electric cap lamps and made partial payment on additional lamps	1,076.19
Made repairs to bathhouse	305.03
Purchased new belt for magnetic pulley	304.37

To replace worn-out belt.

Real Estate Department

Thawed frozen water pipes	489.75
Repaired streets	431.19
Painted and repaired fences	881.67
Repainted 40 tenements	1,275.47
Reshingled 29 tenements	2,706.81
Roofs in bad condition.	
Decorated interior of Bungalow	319.81
Disposed of Garbage	1,140.73

Cost

Converted Boarding House into small	
apartments	239.43

The Boarding House had been partially empty for several years. By spending a small amount of money, we were enabled to make several small apartments which are now rented.

Total, Reliance District	\$ 14,666.39
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Winton DistrictNon-Capital ExpendituresMine DepartmentNo. 1 Mine:

Drove through dirty coal in 3rd North Entry	\$ 1,303.25
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Drilled hole for power lines	460.78
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To shorten lines.

No. 3 Mine:

Drove through dirty coal and graded in 8 and	
9 North Entries	2,719.06

Installed steel timbers	449.89
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Purchased and installed new gears for No. 4	
Panel hoist	235.27

All Mines:

Purchased new electric cap lamps and made partial	
payment on additional lamps	1,138.38

Purchased and installed new shaft for tibble	256.00
--	--------

Extended drainage and sprinkling lines for new	
development	829.54

	<u>Cost</u>
Repaired Bathhouse	\$ 493.37

Real Estate Department

Reshingled 13 tenements	1,342.70
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Roofs in bad condition.

Repainted 32 tenements	1,402.20
------------------------	----------

Disposed of garbage	<u>299.06</u>
---------------------	---------------

Total, Winton District	\$ 11,629.50
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Superior District

Non-Capital Expenditures

Mine Department

"D" Mine:

Shut down expense, including power for pumping and ventilation	\$ 5,805.90
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"E" Mine:

Drained lower "E"	2,048.60
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Reopening old workings.

Drove new Main Haulage Road to shorten haulage	3,484.12
--	----------

This greatly improved haulage and did
away with one hoist and five haulage
men.

All Mines:

Purchased new electric cap lamps and paid pro- portion on others not purchased outright	1,782.57
--	----------

To replace lamps of an obsolete type.

CostReal Estate Department

Reshingled 70 tenements	\$ 5,889.09
Roofs in bad condition.	
Replastered tenements	1,329.92
Repainted interior of tenements	862.55
Disposed of garbage	641.62
Cleaned water wells to increase flow of water	1,135.14

This work increased the volume of water quite perceptibly.

Purchased water to augment supply for domestic use	9,734.62
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With the cleaning of the wells and repairs to pipe lines we expect to cut down the amount of water purchased during 1933. November and December purchases very small.

Total, Superior District	\$ 32,714.13
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Hanna DistrictNon-Capital ExpendituresMine DepartmentNo. 4 Mine:

Moved and set 300 KW Motor Generator Set	\$ 2,575.98
To centralize power distribution.	
Moved and reset 200 H.P. hoist	1,298.96
To take care of new development.	
Cleaned and retimbered main air course	1,000.57
To improve ventilation.	

	<u>Cost</u>
Enlarged main return air course	\$ 530.60
To improve ventilation.	
Moved and reset 52 H.P. hoist	481.01
To handle new development.	
Purchased two horses	250.00
Timbered and laid heavy track in 5 North Entry	936.77
To handle coal from new development work.	
Drove "H" Plane to intersection of Rock Tunnel through "E" Fault	28,536.79

This work done to provide additional output from territory north of the fault. There still remains about 300 feet of this tunnel to be driven during 1933. Estimate was made of work at the beginning of 1932, this was charged to Auditor's Suspense, and charges made monthly against estimate.

All Mines:

Built addition to Machine Shop	231.38
Purchased new electric cap lamps and made partial payment of lamps not purchased outright	1,036.26
To replace lamps of an obsolete type.	

Real Estate Department

Repaired bridges and streets	2,125.36
Resingled 21 tenements	2,241.09

Roofs in bad condition.

Disposed of Garbage	<u>1,043.72</u>
Total, Hanna District	\$ 42,288.49

CostMerchandise DepartmentNon-Capital ExpendituresRock Springs

Purchased and installed one folding steel gate	\$	90.51	
Purchased and installed one Wayne hand pump		82.24	
Painted Bakery		76.00	
Painted filling station		66.38	
Cement work		50.50	
Built display stand		115.37	
Decorated truck for American Legion celebration at Kemmerer		56.20	
Purchased and installed one sealing machine for bakery		<u>73.80</u>	\$ 611.00

Winton

Repaired powder house, ditches, and fixed doors		130.00
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Superior

Installed steel grating on store door		85.14	
Installed gas tank		61.62	
Repaired Dodge truck		<u>84.64</u>	231.40

Hanna

Burglar proofed door and windows		101.58
Installed gasoline tanks and fenced same		346.65

		<u>Cost</u>
Covered front door and window	\$ 59.59	
Remodeled butcher shop	279.15	
Purchased gravel for filling station	73.20	
Purchased and installed burglar protection, gates, etc., for filling station	623.66	
Purchased equipment, including tire spreader, measure and spring spray tools	59.96	
Purchased paint, lumber, door guards, for filling station	201.70	\$ 1,745.49
Total, Merchandise Department		\$ 2,717.89

SUMMARY, NON-CAPITAL EXPENDITURES

Rock Springs	\$ 27,088.70
Reliance	14,666.39
Winton	11,629.50
Superior	32,714.13
Hanna	42,288.49
Merchandise Department, all Districts	<u>2,717.89</u>
GRAND TOTAL	\$ 131,105.10

CostRock Springs DistrictCapital ExpendituresMine Department

Purchase and install rock dust distributor for Nos. 4 & 8 Mines	\$ 3,741.61
--	-------------

To rock dust the mines more effectively.
This work was formerly done by hand,
which was costly and inefficient.

Purchase and install mechanical loading units, including mining machines, small fans, and electric drills	33,795.88
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To increase production of mechanically
loaded coal.

Safety Department

Purchase one Dodge sedan	1,068.27
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To replace old car.

Merchandise Department

Purchase one Dodge sedan	1,121.50
--------------------------	----------

To replace old Dodge sedan used by
Manager of Stores.

Purchase one Dodge truck	1,039.16
--------------------------	----------

To replace old Graham truck used by
Bakery.

Total, Rock Springs District	\$ 40,766.42
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CostWinton DistrictCapital ExpendituresMine Department

Purchase and install mechanical loading units,
including mining machines, drills, fans and circuit
breakers \$ 10,417.22

To increase production of mechanically
loaded coal.

Drilled hole for pump discharge line, cased
same, erected water tank for storage for sprinkling, and
installed pump. 9,176.22

To provide a central pumping station,
eliminating a number of isolated pumps
and pipe lines.

Water Works

Drilled one additional hole and cased same 3,561.24

To provide a sufficient supply of
water for domestic purposes.

Merchandise Department

Purchased one delivery wagon 197.50

To replace wagon that was worn out.

Total, Winton District \$ 23,352.18

Superior DistrictCapital ExpendituresMine Department

Purchase and install one rock dust distributor \$ 3,743.55

To rock dust the mines more effectively.
This work was formerly done by hand,
which was costly and inefficient.

Cost

Purchase and install mechanical loading units,
including mining machines, drills, fans and one motor
generator set \$ 49,207.70

To increase mechanically loaded coal
in "E" Mine.

Purchase and install four automatic circuit
breakers 1,897.19

To provide for heavier loads on
power lines.

Purchased mechanical loading equipment, drills,
haulage motor, motor generator set, and other miscel-
laneous equipment from the Washington Union Coal Company
at Tono, Washington 10,472.05

Merchandise Department

Purchased ice machine, safe, cash register,
and miscellaneous store fixtures and equipment from the
Washington Union Coal Company at Tono, Washington 2,555.00

Total, Superior District \$ 67,875.49

Hanna DistrictCapital ExpendituresMine Department

Purchase and install one pump motor, permis-
sible type \$ 653.02

To equip slope pump in No. 6 Mine.

CostMerchandise Department

Purchase and install one refrigerator counter and box	\$ 1,990.38
To replace obsolete equipment.	
Built gasoline service station	4,553.21
A new highway was recently constructed through Hanna north of our former station. New station was constructed on the new highway to obtain the benefit from the automobile tourist trade.	
Total, Hanna District	\$ 7,196.61

SUMMARY, CAPITAL EXPENDITURES

Rock Springs District	\$ 40,766.42
Winton	23,352.18
Superior	67,875.49
Hanna	<u>7,196.61</u>
GRAND TOTAL	\$ 139,190.70

GENERAL, ALL DISTRICTS

The work of reshingling tenements was continued during the year.

The Community Councils have continued to function during the year. Superior aided its unemployed through organized channels, which supplied relief to a good many families.

The Boy and Girl Scouts continued and extended their activities.

The Annual First Aid Field Day was held June 10th. Ten teams from the Wyoming districts and one from the Washington Union Coal Company participated in this event.

Twenty-three Boy and Girl Scout teams also entered the First Aid Contest.

Following the day's activities, the presentation of the awards was made by Mr. Scott Turner, Director of the United States Bureau of Mines. The meeting was held in the Old Timers' Building. In addition to the awarding of the First Aid prizes, there was presented to No. 4 Mine, Rock Springs, and to "C" Mine, Superior, certificates from the Joseph A. Holmes Safety Association for their safety records, which represented at No. 4 Mine, no fatality during the period April 17, 1923, to December 31, 1931, producing in that time 2,476,122 tons, and at "C" Mine, no fatality during the period July 6, 1927, to December 31, 1931, producing 1,019,753 tons during the period. This fine record was extended through the year 1932.

The Eighth Annual Old Timers' Reunion was above its usual high standard, both with regard to number in attendance and excellent results. Mr. C. R. Gray was the principal speaker, and Mr. Scott Turner was a prominent guest.

The Employees' Magazine was published and distributed as usual. Since February 1st, 1932, Mr. James R. Dewar has carried on the work of this department.

Our Safety program made very definite improvement during the year. The practice of offering awards for the best safety records was

continued. The mines were sectionalized as during the last six months of 1931, and accurate records were kept for each district. Twelve sections continued through the year without an injury, eight of these sections being from Superior, two from Rock Springs, one from Reliance and one from Winton. Winners at the drawing will receive as first prize a Dodge Sedan and as second prize a Chevrolet Sedan.

Throughout the year, at all mining districts, sectional safety meetings were held weekly, and general safety meetings were held each month. These meetings contributed very appreciably to the interest and results obtained.

All employees, including office employees, completed a practical course of instruction in First Aid training, and were given the United States Bureau of Mines Certificate and The Union Pacific Coal Company Certificate. Nearly two thousand employees received these certificates.

All mine employees were supplied with goggles to eliminate as far as possible injuries to the eyes.

In connection with injuries, it is gratifying to report only one fatality during the year, while for the ten-year period ending December 31, 1932, the annual fatality rate was eight. In connection with injuries, the following tabulation will be of interest:

	<u>1930</u>	<u>1931</u>	<u>1932</u>
Number of compensable injuries, hand loading	107	32	13
Tons per compensable injury, hand loading	10,600	20,402	29,702
Number of compensable injuries, mechanical loading	85	62	25
Tons per compensable injury, mechanical loading	20,747	29,042	66,366

The Scale Inspector of the Union Pacific System continued making periodic inspections of mine track scales in which inspection Mr. D. C. Foote, of the Engineering staff, participated, making necessary adjustments and repairs as required.

Production from the Rock Springs Power Plant more nearly approached the 1930 production, the major part of the decrease being due to reduced sales to the Southern Wyoming Electric Company.

The following is a comparison of production for a three-year period:

	1930 K.W.H.	1931 K.W.H.	1932 K.W.H.
Used for plant auxiliaries	2,541,360	2,695,500	2,623,850
Used at boiler plant	367,370	344,420	351,510
Used at No. 6 Wells	370,700	437,900	388,800
Sold to Southern Wyoming Electric Company	5,768,186	5,458,739	4,915,301
Used at The Union Pacific Coal Company mines	<u>17,207,302</u>	<u>18,729,719</u>	<u>17,997,101</u>
Total Production	26,254,918	27,666,278	26,276,562

Real estate sales in Rock Springs totalled only \$2,461.44 for the year.

No further sales of material or property have been made at Cumberland.

The practice of allowing vacations to all employes was continued. The mines at each district were closed down the following periods in order to allow the vacations:

Rock Springs - July 11th - 20th, inclusive.

Reliance - June 1st - 10th, inclusive.

Winton - July 22nd - 30th, inclusive.

Superior - June 21st - 30th, inclusive.

Hanna - July 22nd - 30th, inclusive.

GENERAL CONDITIONS OF MINING PROPERTIES DECEMBER 31, 1932

AND

PROSPECTIVE OUTPUT FOR ENSUING YEAR

ROCK SPRINGS, WYOMING

By T. H. Butler, Mine Superintendent

NO. 2 MINE

Closed on February 15th, 1927, on account of shortage of orders.

The mine is in shape for reopening on short notice, the motorways, air courses, fans, etc. being kept in condition, and an output of 1,800 tons daily could be produced in a short time, if needed.

The supervision of this mine was placed under the direction of the Reliance Mine Superintendent April 1st, 1927.

NO. 4 MINEOld Slope

Entries Nos. 1 to 8 North, inclusive, are finished.

No. 9 North Entry - Entry and rooms have been driven to the boundary, and all room pillars recovered. Entry stumps have been recovered back to No. 6 Room. There are fourteen miners working in this entry.

No. 10 North Entry - Entry faces have been driven to boundary, and connected with No. 8 Mine. Substantial stoppings have been built between workings of No. 4 and No. 8 Mines. All rooms have been driven to the boundary. Room pillars have been recovered and entry stumps have been recovered back to No. 2 Room. There are eight miners working in this entry.

No. 11 North Entry - Entry faces have been driven to the boundary. Thirty rooms have been turned, and all rooms have been driven to the boundary. All room pillars have been recovered, and entry stumps drawn back to No. 15 Room. There are eleven miners working in this entry.

No. 1 South Entry - Entry face is in a distance of 1600 feet from slope, and has been stopped on account of impurities in the seam. Nine rooms have been turned, and all are retreating with hand loaders. Seven hand loaders are working in this entry. Panel plane is connected from this entry to No. 4 South Entry. Thirty-two rooms have been turned, and, with the exception of rooms numbered 2, 4, 14, 16, 18, 20, and 22, which are at the boundary, the rooms are advancing with hand loaders. Rooms numbered 22, 24, 26, and 28 are recovering pillars. There are sixteen hand loaders working in this panel.

No. 2 South Entry - Entry face is in a distance of 800 feet from the slope, and has been stopped on account of impurities in the seam. No work done in this entry during the year.

No. 3 South Entry - Entry face is in a distance of 800 feet from the slope, and has been stopped to protect the sump, situated between No. 2 and No. 3 South Entries. No work done in this entry during the year.

No. 4 South Entry - Entry face is in a distance of 2300 feet from the slope, and has been stopped on account of impurities in the seam. Twenty-one rooms have been turned and all are retreating with hand loaders. There are sixteen miners working in this entry. No advancement made during the year.

New Slope

No. 5 South Entry - Entry face is in a distance of 2300 feet from the slope, and is stopped on account of impurities in the seam. Eighteen rooms have been turned. Rooms Nos. 7 to 19, inclusive, are advancing. Rooms Nos. 20, 21, 22 and 23 are recovering pillars. There are eleven hand loaders and three miners working in this entry. No advancement made during the year.

No. 6 South Entry - Entry face is in a distance of 2100 feet from slope, and has been stopped account of impurities in the seam. Twenty-two rooms have been turned, and all are idle, until pillars in No. 5 Entry are recovered. There are no men working in this entry. No advancement made during the year.

No. 9 South Entry - This entry has been broken off and driven a distance of 500 feet from slope, and will be advanced as soon as more development is required. No advancement made during the year.

No. 12 North Entry - Entry face is connected with No. 2 Slope, No. 8 Mine. No rooms turned. This entry is connected with slope, manway and air courses of No. 8 Mine, and is the main return air course from No. 4 Mine. No advancement made during the year.

No. 12 North Breaking Entry - Face is in a distance of 2400 feet from the old slope, and is at the boundary. Three rooms have been turned. Plans are to recover the coal to the rise by room work on the retreat. No advancement made during the year. Have three shaking conveyors manned by twenty-four men, working double shift in this entry.

No. 13 North Entry - Entry face is in a distance of 2800 feet

from slope, and is at the boundary. Two shaking conveyor units manned by sixteen men are working double shift in this entry, driving rooms up the pitch and recovering pillars. Advancement made during the year was 1500 feet.

No. 14 North Entry - Entry is advancing by use of shaking conveyors. Have two units manned by ten men, working in this entry. No rooms have been turned. Advancement made during the year is 1013 feet.

No. 7 South Entry - Entry face is in a distance of 1326 feet from the slope, and is advancing by use of shaking conveyors. No rooms turned. Have two shaking conveyor units manned by ten men, working double shift in this entry. Advancement made during the year was 1026 feet.

No. 8 South Entry - This entry has been broken off, and driven a distance of 900 feet from the slope. Slope parting and heavy track is being laid preparatory to advancing faces. No advancement made during the year.

New Slope - Face is down a distance of 2700 feet from point of intersection with manway, and is advancing with three hand loaders. Advancement made during the year was 100 feet.

South Air Course and Manway - These places are connected with No. 9 South Entry. North air course is down same distance as slope.

NO 8 MINE

No. 1 Slope

No. 1 North Entry - Entry face is in a distance of 1500 feet from slope, and was stopped account of impurities in the seam. Three rooms and a panel plane have been driven to the rise off this entry. No work done in this entry during the year.

No. 2 North Entry - Entry face is connected with No. 2 Slope.

Twenty-five rooms were turned. Rooms Nos. 2 to 12, inclusive, were driven to the boundary and pillars drawn. Rooms Nos. 13 to 25, inclusive, were driven up a short distance and stopped, and pillars are intact. No work done in this entry during the year.

No. 3 North Entry - This entry is connected with No. 2 Slope.

Eighteen rooms and four conveyerways were driven to boundary, and practically all coal, excepting pillars in rooms Nos. 10 to 17, inclusive, and entry stumps, has been recovered. No work done in this entry during the year.

No. 4 North Entry - This entry is connected with No. 2 Slope.

Thirteen rooms, and eight conveyerways were driven to the boundary, and practically all coal, excepting pillars in rooms Nos. 10 to 12, inclusive, and entry stumps, has been recovered. No work done in this entry during the year.

No. 5 North Entry - This entry is connected with No. 2 Slope.

Thirteen rooms and six conveyerways were driven to the boundary. Pillars have been drawn in rooms Nos. 2 to 5, inclusive, and part of the pillars have been drawn in rooms Nos. 6 to 11, inclusive. Pillars in rooms Nos. 12 and 13 are intact. All coal has been won from scraper loader blocks. Room pillars and entry stumps are intact. No work done in this entry during the year.

No. 6 North Entry - This entry is connected with No. 2 Slope.

Fourteen rooms and ten conveyerways were driven to the boundary. All coal has been won from the scraper loader blocks. Room pillars and entry stumps are intact. No work done in this entry during the year.

No. 7 North Entry - This entry is connected with No. 2 Slope. Twenty rooms were turned and driven to the boundary, and practically all room pillars recovered. All entry stumps are intact. No work done in this entry during the year.

No. 8 North Entry - This entry is connected with No. 2 Slope. Twenty rooms were turned and driven to the boundary. All room pillars have been recovered. All entry stumps are intact. No work done in this entry during the year.

No. 9 North Entry - This entry is connected with No. 2 Slope. Twenty rooms were turned and driven to the boundary. All room pillars have been recovered. All entry stumps are intact. No work done in this entry during the year.

No. 10 North Entry - This entry is connected with No. 2 Slope. Twenty rooms have been driven to the boundary, and pillars recovered. Entry stumps are intact. No work done in this entry during the year.

No. 2 Slope

No. 2 North Entry - Entry face was driven a distance of 2300 feet from slope, and was stopped on account of impurities in the seam, and poor roof condition. Thirty-four rooms have been driven to the rise, by use of shaking conveyors, and pillars in twenty-three inside rooms recovered. Have two 15 H.P. shaking conveyors advancing rooms and recovering pillars. Entry stumps have been recovered back to No. 18 Room. There are twelve men manning the two shaking conveyor units in this entry. No advancement made during the year.

Nos. 4 and 6 North Entries - All room pillars and entry stumps have been recovered, and entries have been sealed off.

No. 7 North Entry - Entry face has been driven to the boundary, a distance of 4500 feet from the slope. All marketable coal to the rise has been recovered by use of shaking conveyors, by the long face method. Entry stumps have been recovered by men loading onto pit car loaders, back to a point 2000 feet from the slope. Have four pit car loaders and eight men working, double shift, in this entry. No advancement made during the year.

No. 9 North Entry - Entry face has been driven to the boundary, a distance of 4600 feet from the slope. All coal to the rise has been recovered by use of scraper loaders. Entry stumps are now being recovered by use of pit car loaders. Have eight men and four pit car loaders in this entry. Entry stumps have been drawn back to a point 2000 feet from the slope. No advancement made during the year.

No. 10 North Entry - Entry face has been driven to the boundary, a distance of 4100 feet from the slope. All coal to the rise has been recovered by use of scraper loaders. Entry stumps are now being recovered near the face of the entry, by scraper loader operating out of No. 11 Entry. Entry stumps have also been recovered by use of men loading onto pit car loaders, to a point 1400 feet from the slope. Have done no work in this entry during the year.

No. 11 North Entry - Entry face has been driven to the boundary, a distance of 3900 feet from the slope. Coal to the rise, for a distance of 3000 feet was recovered by hand miners and loaders, using the room and pillar system. Scraper places have been driven to the rise by use of shaking conveyors. The coal to the rise, for a distance of 2900 feet back

from the face, was recovered by use of scraper loader, and long face retreating system. Recovery of balance of coal to the rise and entry stumps will be by use of shaking conveyors. Have one shaking conveyor unit and six men working double shift, in this entry.

No. 12 North Entry - Entry face has been driven to the boundary, a distance of 3750 feet from the slope. Coal to the rise, for a distance of 1100 feet, has been recovered by use of hand loaders, and the room and pillar system. Twenty-five rooms have been turned. Rooms Nos. 1 to 11, inclusive, have been driven to the boundary and pillars recovered. Rooms Nos. 12 to 21, inclusive, have been driven to the boundary, and pillars left intact. Rooms Nos. 22 to 25, inclusive, have been driven only a short distance from the entry. Eight conveyorways have been driven to connect with No. 11 Entry, and blocks have been recovered by use of a scraper loader unit. Balance of the coal to the rise will be recovered by use of shaking conveyor units. Have four pit car loaders, manned by eight men, working in this entry. No advancement made during the year.

No. 13 North Entry - Entry face has been driven to the boundary, a distance of 3600 feet from the slope. Coal to the rise has been recovered by use of a scraper loader, to a point 2500 feet from the slope. Coal to the rise has also been recovered by use of scraper loaders to a point 450 feet distant from the boundary, retreating. On account of the physical conditions of the seam, the remaining coal in this entry will be recovered by use of shaking conveyors and pit car loaders. Have four pit car loaders, manned by eight men, working in this entry. Entry stumps have been recovered back to a point 700 feet from the slope. No advancement made during the year.

No. 14 North Entry - Entry face has been driven to the boundary, a distance of 3400 feet from the slope. Coal to the rise has been recovered to a point 1800 feet from the slope. Conveyorways have been driven and the coal to the rise has been recovered, by use of scraper loaders, back to a point 800 feet from the boundary. All workable and marketable coal to the rise has been recovered, and entry stumps will be recovered by use of shaking conveyors and pit car loaders. No work done in this entry during the year.

No. 15 North Entry - Entry face has been driven to the boundary and coal to the rise recovered by use of scraper loader to a point 2000 feet back from the boundary. Have fourteen conveyorways driven to the rise and connected with No. 14 Entry. Remaining coal between this entry and No. 14 Entry will be won by use of scraper loaders, on the retreat system, roof conditions permitting. Have a shaking conveyor and one scraper loader, manned by twenty-one men, working in this entry. No advancement made during the year.

No. 16 North Entry - Entry face is in a distance of 4800 feet from the slope, and is connected with Lionkol No. 1 Mine. Have fourteen conveyorways driven to the rise, and connected with No. 15 Entry, for the purpose of assisting ventilation and providing travelling way. Available coal in Lionkol No. 1 Mine, to the rise of this entry will be recovered by use of shaking conveyors, with the retreating system. Have three shaking conveyors and one scraper loader, manned by twenty-two men, working in this entry. Advancement made during the year was 1600 feet.

No. 17 North Entry - Entry face is in a distance of 5000 feet from the slope, and is connected with Lionkol No. 1 Mine workings. All

available coal in No. 1 Mine, Lionkol, to the rise of this entry will be recovered by use of shaking conveyors, and all coal to the rise of this entry in No. 8 Mine, will be recovered by use of scraper loader, roof conditions permitting. Have three shaking conveyor units, manned by twenty-three men, working double shift in this entry. Advancement made during the year was 2000 feet. Slope, manway and return air courses are connected with No. 12 Entry, No. 4 Mine.

No. 18 North Entry - Entry face is in a distance of 3500 feet from slope, and is advancing with shaking conveyors. Have seven conveyorways driven to the rise and connected with No. 17 Entry, for the purpose of assisting ventilation, and for travelling ways. This entry will be advanced to connect with Lionkol No. 1 Mine, and coal to the rise will be won by use of scraper loaders and shaking conveyors, on retreat system, roof conditions permitting. Have three shaking conveyors, manned by fourteen men, working double shift in this entry. Advancement made during the year was 2300 feet.

No. 19 North Entry - Entry face is in a distance of 2800 feet from slope, and is being advanced with shaking conveyors. Have seven conveyorways driven to the rise and connected with No. 18 Entry, for the purpose of travelling ways. This entry will be driven to boundary, and coal to the rise will be won by use of scraper loaders on the retreat system, roof conditions permitting. Have two shaking conveyors, manned by fourteen men, working in this entry. Advancement made during the year was 1900 feet.

No. 20 North Entry - Entry face is in a distance of 250 feet from the slope. Work of building overcasts is progressing. As soon as

overcasts are completed this entry will be advanced by use of shaking conveyors. Advancement made during the year was 250 feet.

Probable daily production for the year 1933:

No. 4 Mine	1500 tons.
No. 8 Mine	<u>2000 tons.</u>
Total	3500 tons.

Fatal Accident

Joseph Marushack, American (Slavish parentage), age 19 years, single, scraper loader laborer, No. 8 Mine, 16 Entry, received injuries by fall of rock at 1:15 P.M., May 20th, 1932, from which he died two days later.

GENERAL CONDITIONS OF MINING PROPERTIES DECEMBER 31, 1932

AND

PROSPECTIVE OUTPUT FOR ENSUING YEAR

RELIANCE, WYOMING

By M. W. Medill, Mine Superintendent

NO. 1 MINE

All entries and stumps, except 6 North, 8 North, 8 South and 1 Panel off 8 North, are finished.

No. 4½ North Entry - finished this year and walled off.

No. 5 North Entry - Finished this year, but not walled off as yet.

No. 6 North Entry - Stumps can be started, at any time we need the coal, from New Slope to Main Slope.

No. 8 North Entry - All stumps are out to 7 Panel. All panels except No. 1 Panel, are finished.

No. 8 South Entry - All stumps to No. 2 Room are out.

No. 9 South Entry - This entry will be the haulage road from No. 4 Mine to the Rock Slope at some future time.

The following are the workable places in No. 1 Mine:

- 6 North Stumps, not working.
- 8 North Stumps, working.
- 8 South Entry, working.
- 1 Panel off 8 North, working.

There are thirty-one miners and twelve company men, a total of forty-three men, employed in this mine.

Fire walls are in good shape and very little trouble was experienced from fires this year.

The following tabulation indicates the cost of mine fires for 1932, and for the past eleven years:

Cost for the Year Ending December 31, 1932

<u>Month</u>	<u>Amount</u>	<u>Tonnage</u>	<u>Cost Per Ton</u>
January	\$ ---	18,897.20	\$ ---
February	217.61	23,546.65	.0092
March	174.14	19,322.70	.0090
April	---	17,545.30	---
May	---	20,657.00	---
June	---	11,485.40	---
July	---	18,953.85	---
August	---	18,287.90	---
September	---	23,544.35	---
October	---	32,681.70	---
November	---	23,320.95	---
December	---	22,149.10	---
Total	\$ 391.75	250,392.10	\$.0016

Summary of
Cost for Years 1922 - 1932, Inclusive

<u>Year</u>	<u>Amount</u>	<u>Tonnage</u>	<u>Cost Per Ton</u>
1922	\$ 28,033.10	275,485.50	\$.1018
1923	18,745.99	362,002.05	.0518
1924	12,567.26	293,262.50	.0429
1925	10,281.04	270,121.35	.0381
1926	28,060.66	263,274.35	.1066
1927	4,411.80	261,117.95	.0169
1928	3,802.71	297,278.90	.0128
1929	2,444.60	348,358.85	.0070
1930	2,564.26	330,564.75	.0078
1931	2,768.99	271,041.85	.0102
1932	391.75	250,392.10	.0016
Total	\$114,072.16	3,222,900.15	\$.0353

NO. 4 MINE

No. 1 Slope

No. 4 North Entry - All rooms finished on this entry out to

No. 5 Room. From No. 5 Room to No. 2 Room, there is a small piece of coal to get out. This entry not working.

No. 5 North Entry - This entry has two conveyors working in rooms and pillars on the retreating system. Seventeen rooms and pillars have been finished, and there are twenty-two rooms to be developed. All the coal that was around the creek has been recovered this year. Pillars were left in to protect the creek.

No. 6 North Entry - This entry has one scraper and one conveyor working, the conveyor developing scraper places and the scraper working on retreating system. There have been nineteen scraper blocks taken out, and there are sixteen more blocks to be developed. There is approximately one more year's work for the scraper in this entry.

No. 7 North Entry - This entry has two conveyors working on development work, giving another scraper entry when needed. The total distance developed this year is 3100 feet.

No. 8 North Entry - This entry is on development work with a pit car loader, 600 feet having been developed this year.

No. 9 North Entry - No development work done this year. This is the entry that connects with the tunnel from No. 1 Mine.

No. 4 South Entry - This entry has been developed 2350 feet, to dirty coal. Have two conveyors working on rooms and pillars on the retreating system.

No. 5 South Entry - This entry has been developed with conveyors 2750 feet to dirty coal, and stopped.

No. 6 South Entry - This entry has been developed 850 feet, and is not working at the present time.

No. 7 South Entry - This entry has been developed 400 feet, and is not working at the present time.

All development work has stoppings, track and trolley wire installed.

Ventilation is good.

A number of sprays have been installed on Main Slope, and water is available in all places and on cutter bars.

Laid 600 feet of 60# rail on No. 1 Slope.

No. 2 Slope

No. 3 North Entry - This entry is on contract loading and cutting and is finishing up some old work.

No. 3 South Entry - This is one of the old entries off No. 2 Slope. Two conveyors, working rooms and pillars on the retreating system, have just been started.

An old cave, about 150 feet long and 7 feet high, had to be cleaned up on No. 2 Slope this year.

About 600 feet of 60# rail was laid on this slope.

The following men are employed in No. 4 Mine:

Company Men	-	102	
Machine Men	-	2	(Cutting for hand loaders.)
Hand Loaders	-	<u>11</u>	
Total			115

GENERAL

No improvements were made in No. 1 Mine during the year outside of keeping same in a safe operating condition at all times.

Installed 5500 feet of 1 1/8" wire rope on No. 1 Outside Slope Hoist.

The Motor-Generator set has been moved from No. 1 to No. 4 Mine, and three of the pumps from 11 Entry have been taken out.

Outside of keeping up the development in No. 4 Mine, and maintaining the mine in a safe operating condition at all times, no other improvements were made.

The general conditions of both mines are good.

Probable daily production for the year 1933:

No. 1 Mine 200 tons.

No. 4 Mine 1400 tons.

Total 1600 tons.

FATAL ACCIDENTS

None.

GENERAL CONDITIONS OF MINING PROPERTIES DECEMBER 31, 1932

AND

PROSPECTIVE OUTPUT FOR ENSUING YEAR

WINTON, WYOMING

By Thomas Foster, Mine Superintendent

NO. 1 MINE

The slope is down about 3420 feet with No. 7 South Entry turned off.

No. 5 North Entry - This entry will be finished early next year.

No. 6 North Entry - This entry has advanced about 670 feet and the coal at face is about $5\frac{1}{2}$ feet thick.

No. 7 North Entry - This entry has been advanced about 345 feet and the coal at face looks very good. It is a little over 7 feet thick and has no impurities in the seam, but the roof is very bad, requiring crossbars. None of the other entries in the North side have proved very good.

No. 3 South Entry - This entry has been driven 4817 feet, and in a distance of 1400 feet have had no working places. The coal at face is a little over $5\frac{1}{2}$ feet thick, but it is not very good on account of being under shallow cover. Expect better coal in the next 200 feet, as greater cover will be gained in that distance. Three shaker loaders are in this entry.

No. 4 South Entry - This entry is advancing in dirty coal 3282 feet from the slope. About 1 foot above the bottom, there is 10 inches of

bone, on top of which the entry will advance in a short distance, and then nearly 6 feet of coal will be faced. A scraper loader and three shakers are working here. Some very nice scraper blocks will be worked in this entry.

No. 5 South Entry - This entry is advancing in clean 7-foot coal, 2025 feet from the slope. Two shaker loaders are working in this entry, and as the roof is improving it is believed considerable nice scraper work will be developed.

No. 6 South Entry - On account of driving a slant, this entry has not been driven far off the main slope. Preparations are being made to drive up the pitch from No. 7 South Entry and start off the Main Slope with both entries at about the same time.

NO. 3 MINE

No. 4 North Entry off the Main Slope - This entry was reopened during the year, and one shaker loader has been working therein, preparing to take out the entry pillars.

Nos. 5, 6 and 7 North Entries off the Main Slope - These entries have been stopped and all material removed therefrom.

No. 8 North Entry off the Main Slope - This entry has been driven 1910 feet and the coal at face is about 5 feet thick, with bands of sulphur and bone mixed with it. When the sulphur is near the bottom of the seam, it makes the cutting very difficult.

No. 9 North Entry off the Main Slope - This entry has been driven 1650 feet, and is advancing in coal little more than 5 feet thick. Considerable sulphur and bone has made the cutting especially hard, and brushing had to be done to lay the track in this entry.

No. 4 South Entry off No. 4 Panel - This entry was sealed off this year. There are a few entry pillars in this entry.

No. 5 South Entry off No. 4 Panel - This entry was sealed off this year, also.

No. 6 South Entry off No. 4 Panel - This entry is finished with the exception of the entry pillar on the top entry.

No. 7 South Entry - This entry is advancing in clean 7-foot coal 2635 feet from No. 4 Panel. The roof is such that little timbering with rails for crossbars is necessary. One scraper and two shaker loaders are working here.

No. 8 South Entry - This entry is advancing in clean coal little more than 6 feet thick, 875 feet from No. 4 Panel Slope. One shaker loader is in this entry.

No. 9 North Top Breaking Entry - This entry has been turned off No. 4 Panel with a small 10 H.P. Cosco.

No. 8 North Entry - This entry is advancing in clean coal of little over $5\frac{1}{2}$ feet thickness, 2115 feet inside No. 4 Panel, with very bad roof. Two shaker loaders are working here.

No. 4 Panel Slope - This slope is advancing in clean coal, a little over $5\frac{1}{2}$ feet thick. This slope needs to be driven about 150 feet farther before starting No. 9 South Entry.

GENERAL

Mine cars are in poor shape, and, the wheels being badly worn, are continually coming off. A number of wheels have been replaced this year. There are also large openings in the cars, making it difficult to keep haulage roads clean.

The locomotives are in fair shape. One six-ton locomotive needs overhauling, and the tires need changing on others. The four-ton locomotives are too small for some of the entries, especially where there are swamps, and the pulling out of slants makes the cost of repairs on the C. E. 96 motor high.

All hoists are in fair condition, although we have had several breakdowns with No. 4 panel hoist during the year. Considerable coal is handled off No. 4 Panel and it has to be hoisted from the lower end, keeping the hoist running steady.

Generators are in fair condition. The small generators in No. 3 Mine are carrying a big load. It is anticipated power will be available from the generators on the outside when No. 3 Slope is connected.

Haulage rope on No. 1 Slope has some broken wires and will need to be changed. No. 3 Mine main slope rope is in good condition. No. 4 Panel slope rope will soon be replaced.

The electric wiring is in fair shape in both mines. The wire condition in No. 1 Mine was considerably improved by the drill hole put down this summer, this eliminating about 2500 feet of 2300 volt cable on No. 4 South Entry. It will probably be necessary to move the transformers from the top of the fan shaft at No. 3 Mine down into No. 8 or No. 9 North Entry next year as the machines are getting too far away from the transformers and the drop in voltage is getting too great. This will require putting a 2300 volt line down the air shaft and into one of these entries.

Ventilation is good in both mines. An overcast was built in No. 1 Mine this year. Another will have to be built very soon, as the first one

is useless unless we build one over the slope. A number of stoppings in old rooms in No. 3 Mine were built, and all old entries in No. 1 Mine were walled off during the year.

Considerable rock dusting was done during the year, 180 tons of rock dust having been used. The dusting machine has not caused any trouble.

Some of the shaker conveyers are showing wear, and a number of the Cosco and Link-Belt conveyor pans will need replacing soon.

The mine stock is in fair condition. Some of the best horses are a little too big for the low coal entries and small mules cannot pull very many cars.

Some painting and shingling of tenements was done this year. More tenements will need reshingling next year.

The water works is in fair condition with the exception of the big compressor. This machine is badly worn and does not make enough air to lift the water from the wells. The well that was drilled this summer has not given any trouble.

The tippie equipment is in fair shape, although considerable repair work on our rotary dump has been necessary. The shakers have not given much trouble, and the magnetic pulley has taken considerable metal out of the coal.

Some of the mining machines are not in very good shape. There are several old Sullivan machines, and among them four A. C. machines, the cost of repairs on which is considerably higher than on the other type of machine. It is necessary to carry both A.C. and D.C. power lines in some of the entries, especially in the entries where locomotives are in use.

The blower fans are showing considerable wear on the commutators from constant running, making it necessary to change the commutators on some of the fans next year.

The pumping should be considerably better next year.

The Community Council has functioned well during the year, it having sponsored several entertainments, and also aided in relief work. The council is in good shape financially, with more than \$700.00 in its treasury.

1933 daily production will amount to approximately 2250 tons.

FATAL ACCIDENTS

None.

GENERAL CONDITIONS OF MINING PROPERTIES DECEMBER 31, 1932

AND

PROSPECTIVE OUTPUT FOR ENSUING YEAR

SUPERIOR, WYOMING

By Geo. A. Brown, Mine Superintendent

"A" MINE

This mine has not been worked during the year 1932.

"B" MINE

This mine is in what is known as the Van Dyke Seam. All entries down to No. 7 South Entry and No. 5 North Entry on main slope are finished. No work done on main slope this year.

No. 5 North Entry - This entry is in a distance of 4350 feet from the main slope and has not been driven any this year. The face of the entry is about 540 feet from the boundary line of the Government lease on Section 20.

No. 7 Panel off No. 5 North Entry - This entry is connected through to No. 8 North Entry and Nos. 7 and 7½ South Entries are connected through to No. 5 Panel. Thirteen rooms have been driven and pillars drawn on No. 7 South Entry. This work is in 5 feet of coal with a fair roof.

No. 7 South Entry off No. 8 South Entry - Eighteen rooms have been driven and pillars pulled on this entry from the fault. This work is in 6 feet of coal with heavy slough rock roof.

No. 8 South Entry - Fifteen rooms have been driven and pillars pulled from the fault. This work is in 6 feet of coal with a heavy slough rock roof.

No. 9 South Entry - Fourteen rooms have been driven and pillars pulled from the fault. This work is in 6 feet of coal with a heavy slough rock roof.

No. 10 South Entry - This entry has been driven into the fault and is ready now to turn rooms on retreat.

No. 8 North Entry - Five rooms have been driven and pillars pulled on retreat from 5 Panel. All work on the north side is in 5 feet of coal with fair roof.

All work above No. 8 North Entry from No. 3 Panel to No. 5 Panel is nearly finished. Nineteen rooms have been driven and pillars pulled.

"C" MINE

This mine is in what is known as the Rock Springs No. 1 Seam. All workings in this mine are on what is known as No. 4 Panel Slope. All workings on the north side of this slope are finished, down to No. 13 North Entry, and down to No. 10 South Entry on the south side, and from No. 10 South down to No. 13 South Entry. All workings on the main slope are finished.

No. 4 Panel Slope - This slope has been driven to a point below No. 17 North Entry and is still advancing. Coal section -- 6 feet of coal, 2 inches of rock, and 1 foot 10 inches of coal, with heavy roof conditions. Manway and air course connections are complete to No. 16 South Entry. One overcast built this year at No. 16 South Entry.

No. 10 South Entry - All pillars pulled back to No. 7 Panel on retreat.

No. 13 South Entry - All rooms and pillars drawn to within 200 feet of air course.

No. 14 South Entry - All rooms and pillars drawn to within 850 feet of air course.

No. 15 South Entry - Sixteen rooms have been driven and pillars pulled on retreat from boundary.

No. 16 South Entry - This entry has been driven into boundary and rooms started back on retreat.

No. 17 South Entry - This entry is advancing and is a distance of 1700 feet from the slope.

No. 15 North Entry - All rooms and pillars finished on this entry.

No. 16 North Entry - This entry is advancing and is in a distance of 1100 feet from the slope. Conditions none too favorable. Considerable rock in seam at this point. Coal section from floor -- 2 inches of coal, 1 foot 6 inches of rock, 3 feet of coal, 4 inches of rock or bone, and 3 feet of coal and 4 inches of bone.

This mine has very heavy and bad roof, requiring lots of supervision and heavy expenditures for timber and labor. It is believed that consideration should be given to steel sets or treated timber for main lines and air course work.

All coal loaded by shaking conveyors and northern conveyors.

"D" MINE

This mine is in what is known as the Rock Springs No. 1 Seam, partly on Sections 17 and 18, under Government lease.

There has been no work done in this mine during the past year, it having been closed down since February 15, 1927. This mine is in good condition, being patrolled every day and the fan and pumps running continuously.

This mine has been robbed of mine cars and machinery, which will have to be taken into consideration before reopening the property.

"E" MINE

This mine is in No. 7 Seam, all workings being on leased ground on Section 20.

No. 4 Panel Slope - All work on entries from No. 3 North to No. 9 North Entries is finished. A diagonal slope has been driven down to a point 100 feet below No. 13 North Entry with manway connections. Coal section -- 7 feet 6 inches of clean coal.

No. 3 North Entry - All rooms finished and some pillars pulled.

No. 9 North Entry - All rooms and pillars pulled. Entry stumps are being pulled from No. 9 Room out.

No. 10 North Entry - All rooms practically finished and pillars are being pulled from No. 12 Room out.

No. 11 North Entry - All rooms and pillars pulled to within 400 feet of the slope.

No. 12 North Entry - Thirteen rooms have been pulled on retreat. Pillars are now being pulled under Superior Rock Springs Coal Company's slope in accordance with agreement with it.

No. 13 North Entry - This entry was driven into dirty coal area and five rooms have been driven and pillars pulled on retreat.

No. 14 North Entry - This entry is advancing and is in a distance of 1500 feet.

No. 15 North Entry - This entry is advancing and is in a distance of 300 feet.

Nos. 13 and 14 South Entries have been driven approximately 650 feet to line up with the old No. 4 Panel Slope. The slope has been driven down about 100 feet below No. 15 North Entry and will be stopped at this point. Old No. 4 Panel Slope will be cleaned and straightened from No. 10 Entry down. A new haulage way has been driven and completed from the old dip entry to No. 4 Panel Slope, which greatly facilitates haulage in this mine. Two overcasts and twenty stoppings have been built during the year.

This mine has a very bad roof requiring lots of supervision and heavy expenditures in timber and labor, making the maintenance cost high. All coal in this mine is loaded by shaking conveyors and pit car loaders.

GENERAL

The present life of these properties is hard to estimate as there seems to be an element of uncertainty relative to workable coal. "B" Mine slope is in dirty coal and one hole drilled ahead of present workings shows dirty coal. It would seem from this that all the coal is North of present workings. In "C" Mine, while present coal in slope and north side of mine is good, there are indications that low and dirty coal is cutting across from the north side towards the slope very rapidly and extensive cover will have quite a bearing on future mining conditions in this mine, with heavy maintenance cost in timber and labor. "E" Mine is gaining cover fast and is cut off on the north side, and also on the south side of old Main Slope, with an area of dirty coal. It will be practically confined to a narrow strip of workable coal until advancing below workings of old "E" Mine. Extensive cover will have the same bearing on this mine as "C" Mine, which may affect cost conditions very materially. Therefore,

it would seem necessary to prepare a drilling and prospecting plan for future openings, as present mining conditions are none too favorable.

Water lines continue to give lots of trouble with breaks and leaks. A number of shut-off valves were installed this year, which will help in controlling breaks and leaks.

Probable daily production for the year 1933:

"D" Mine 1200 tons.

"G" Mine 1200 tons.

"E" Mine 1150 tons.

Total 3550 tons.

FATAL ACCIDENTS

None.

GENERAL CONDITIONS OF MINING PROPERTIES DECEMBER 31, 1932

AND

PROSPECTIVE OUTPUT FOR ENSUING YEAR

HANNA, WYOMING

By O. G. Sharrer, Mine Superintendent

NO. 2 MINE

No. 1 South Entry - Pillars have been drawn out to No. 10 Room, and entry has been sealed off between Rooms Nos. 4 and 5. No work has been done in this entry during the year.

No. 2 South Entry - Pillars have been drawn out to No. 23 Room, and the entry has been sealed between Rooms Nos. 19 and 20. No work has been done in this entry during the year.

No. 3 South Entry - Pillars have been drawn out from fire seal at No. 14 Room to No. 8 Room, and entry stumps are now being drawn. Fifteen men are employed in this entry.

No. 4 South Entry - Pillars are being mined in Rooms Nos. 1 to 8, inclusive. Fire seals are built between Nos. 8 and 9 Rooms. Only a portion of these pillars can be mined on account of The Rattlesnake Creek Water Company's lines. Twenty men are employed in this entry.

No. 5 South Entry - All pillars have been removed from this entry and fire seals are installed inside manway. No men working in this entry.

No. 7 South Entry - All coal in this entry has been removed. Entry is closed by seals on Main Slope.

Main Slope - Sealed off 50 feet above No. 7 South Entry. All pillars and top coal removed between Nos. 7 South and 9 South Entries.

Main Slope Panel Rooms - Panel rooms between No. 5 South and No. 7 South Entries have been driven to their destination and slightly over one-half of pillars and top coal removed. Sixteen men are employed in this section.

No. 6 North Entry - All pillars have been removed and entry sealed inside main return.

No. 6-A North Entry - This entry is in a distance of 400 feet and is stopped against the "A" Fault. Five rooms have been turned and driven to their destination. Top coal has been recovered to the room necks and entry stumps are now being mined. Room pillars cannot be mined in this entry on account of tenements. Entry stumps will be mined. Six men are employed in this entry.

Main Slope Rooms between Nos. 4 South and 5 South Entries - Three panel rooms have been turned off Main Slope between Nos. 4 and 5 South Entries, and have been driven a short distance beyond the manway. Two men are now employed in these rooms.

General - Mining conditions have been much easier during the past year due to lighter cover and concentration of workings. This mine will be completely worked out in about eight months of operation, unless soft coal in No. 2 South Entry is mined.

There were no fires in No. 2 Mine during the year.

NO. 4 MINE

No. 1 North Entry - Entry face is in a distance of 2400 feet from slope and is stopped at the "B" Fault. "A", "B" and "C" Planes were driven off this entry to the crop coal. Rooms were driven from the north

and south of these planes to their destinations. All pillars are intact and the area has been sealed to prevent fire.

No. 2 North Entry - Entry face is in a distance of 8180 feet from the main slope, 1080 feet having been driven in rock of the "E" Fault during this year. Entry has about 250 feet to drive to encounter the coal seam to the north of the "E" Fault.

A, B, C, D, and E Planes have been driven to the outcrop of this entry and all rooms and top coal worked out. All these panels are sealed to prevent fires.

F Panel has been driven to the surface from this entry and rooms were driven north and south from this panel to the faults.

Top coal has been removed in all rooms except Nos. 2 and 3, where top coal was left to prevent surface caves. This plane has not been sealed, as it is being used as intake airway and escapeway.

G Panel was driven to the surface off this entry and rooms Nos. 1 to 14, inclusive, were driven north to the E Fault. All top coal has been removed from this panel and the panel has been left open for hoisting and ventilation.

H Plane has been driven down from the surface a distance of 1200 feet and is connected to No. 2 North Entry at the face by a vertical rock chute. There are no rooms turned off this panel.

No. 3 North Entry - Entry face is connected with E Panel and has not advanced beyond this point. B, C, and E Panels have been driven off this entry, connecting through to No. 2 North Entry. Rooms have been driven to the north and south off these panels and all top coal recovered. All pillars are intact. B, C, and E Panels have been sealed to prevent fires.

Shovel Rooms Main Slope - Shovel Rooms Nos. 1, 2, 3, 4, and 5 were driven north off the main slope between No. 3 and No. 4 North Entries to within a short distance of the fault. Top coal has been recovered and pillars are intact. These rooms have been sealed off to prevent fires.

No. 4 North Entry - Entry face is in a distance of 5100 feet from the main slope and is at the E Fault. No advance during the year. E Panel has been driven off this entry connecting with No. 3 North Entry. Rooms have been driven to the north and south off E Panel and top coal recovered.

E Panel is sealed to prevent fires.

F Panel, No. 4 North Entry, has been connected to No. 2 North Entry and Rooms Nos. 3 to 33, inclusive, have been turned to the south and driven to the fault. Rooms Nos. 2 to 28, inclusive, have been turned to the north and driven to the fault. Top coal has been removed in all rooms and panel was abandoned and sealed in August 1930.

G Panel, No. 4 North Entry, has been connected through to No. 2 North Entry, a distance of 1800 feet. Rooms Nos. 1 to 18, inclusive, have been turned to the north. No. rooms will be turned to the south on this panel on account of close proximity to the "D" Fault. Rooms Nos. 1 to 10, inclusive, have been driven to their destination and all top coal removed. No work is now being done in this panel. G Panel is not sealed, being open for ventilation. Rooms Nos. 11 to 13, inclusive, have not been driven on account of very bad roof. Rooms Nos. 14 and 15 have been driven as entries for a distance of 400 feet and are stopped against the fault. Rooms Nos. 16, 17, and 18 have been driven in to the fault by Eickhoff conveyors.

No. 5 North Entry - Entry face is in a distance of 4115 feet from the Main Slope and is stopped at the D Fault. Top coal has been removed and entry sealed at F Panel.

E Panel, No. 5 North Entry, has been connected through to No. 4 North Entry and Rooms Nos. 2 to 16, inclusive, have been driven north to the C Fault, Rooms Nos. 1 to 17, inclusive, have been driven south to the B Fault. Rooms Nos. 18 and 19 have been stopped to protect No. 5 North Entry. One Vulcan Scraper is idle on this panel. Loading on this panel is performed by one Joy 5 B.U. Loader. About 120 Joy shifts will be required to remove all top coal on this panel.

F Panel, No. 5 North Entry, has been connected through to No. 4 North Entry. Rooms Nos. 1 to 15, inclusive, have been driven south to the C Fault. Rooms Nos. 2 to 16, inclusive, have been driven north to the D Fault. All coal has been removed from this panel and panel sealed to prevent fires.

E Dip, No. 5 North Entry, has been driven down a distance of 1200 feet and has uncovered nine rooms on each side. Rooms Nos. 15, 17, and 18 have been driven to their destination and top coal is being removed. Rooms Nos. 11, 12, 13, 14, and 16 are advancing. Three Joy 5 B.U. Machines are employed on this Panel. Due to excessive cover, considerable trouble is being encountered in this panel due to "bumps" and heaving bottom.

A Dip, No. 5 North Entry. This panel has been connected from face of main slope to No. 5 North Entry, and hoist and trackage installed to start sinking after January 1st, 1933. A new section of main return with connections to No. 9 Room, E Dip, has been completed with natural

improvements in the ventilation of this section. Shaking conveyors are now driving the rise section of A Dip above No. 5 North, so as to provide room for permanent hoist installation for this panel. A new sump has been driven to the south of the main slope to provide water storage for A Dip.

No. 2 South Entry - Entry face is in a distance of 1000 feet from slope and is at the fault. A and C Panels off this entry were driven up a short distance and stopped in order to protect railroad right of way. No rooms were driven off these panels. Panel and entry pillars are intact. Entry and panels sealed off to prevent fires. No work done in this entry during the year.

No. 3 South Entry - Entry face is in a distance of 1400 feet from slope and is at the fault. A and C Panels off this entry connect with No. 2 South Entry. Rooms were driven off these panels to the boundary and top coal recovered. Panel and room pillars are intact. Entry and panels sealed off to prevent fires. No work done in this entry during the year.

No. 4 South Entry - Entry face is in a distance of 1700 feet from slope and is at the fault. A, B and C Panels off this entry are connected with No. 3 South Entry. Rooms were driven to the boundary on either side of these panels. All top coal has been recovered. Pillars in panels and rooms are intact.

B Panel off this entry was driven to the dip, a distance of 1800 feet and connected with the shovel slope. This panel was abandoned on account of impurities in the seam and excessive cover. Rooms were driven off either side of panel to boundary. All top coal has been recovered. Panel

and room pillars are intact. Entry and panels sealed off to prevent fires. No work done in this entry during the year.

Shovel Slope - Was driven down a distance of 1800 feet from the main slope and intersects B Panel from No. 4 South Entry. Rooms were driven southward to the boundary and top coal recovered. Room and slope pillars are intact. All workings sealed off to prevent fires. No work done in this section during the year.

Main Slope - Face is down a distance of 4300 feet from the surface and has not advanced during the year.

Crosscut near the face of main slope has been cleaned up and side track for A Dip has been installed. This crosscut is now known as No. 6 North Entry.

No. 6 North Entry has been connected to the new section of main return and an air course has been driven below this entry for ventilation and drainage.

General - Owing to heavy development charges this mine has been under a severe handicap during 1932 and no improvement can be expected until the area north of the E Fault is put into production. This area cannot produce a material tonnage before October, 1933.

Mining conditions in the lower area of No. 4 Mine will be poor during 1933 due to heavy cover and squeeze conditions.

Fires in No. 4 Mine - Smoke was discovered coming from cave in face of No. 7 Room, G Plane, No. 2 North Entry, at 8:30 A.M., December 12th. Fire was out at 4:00 P.M., by use of water and rock dust.

SURFACE FIRES

Fire was discovered in "G" Plane fan at 3:30 P.M., August 25th, apparently caused by sparks from welding torch.

The fire destroyed the motor house and portion of fan building. It was under control at 4:00 P.M., and entirely extinguished at 5:00 P.M.

Probable daily production for the year 1933:

No. 2 Mine	500 tons.
No. 4 Mine	1200 tons.
No. 6 Mine	<u>200 tons.</u>
Total	1900 tons.

S A F E T Y D E P A R T M E N T

By

V. O. Murray, Safety Engineer

The progress made toward the elimination of injuries, fatal, serious and minor, was probably the most satisfactory that the Safety Department has had for several years. During the year there were one fatal, fifty-nine serious, and twenty-one minor injuries to underground and surface employees.

The work of the Safety Department was along the same lines as inaugurated during the last half of 1931, namely that of dividing the mines into sections with a section foreman in direct charge of operations at the working face, and the awarding of two automobiles and \$250.00 in two cash prizes as an incentive for real competition between the sections and section foremen for their efforts put forward. ¹¹

The awards, together with more supervision, more rigid and severe discipline, and the better condition of the mines, that is, better timbering, cleaner roadways, and a more thorough investigation of all lost-time injuries, and regular monthly and bi-monthly safety meetings, secured a result, which, while not as good as wanted, was somewhat better than expected when the program is considered as a whole.

A major part of the time was spent underground traveling all working places, air courses, and haulage ways, making inspections of high voltage

¹² On February 10th, 1933, the presentation of Safety awards was made at the Old Timers' Building, with 745 men participating in the drawing. This represented 12 sections from the various mines at Rock Springs, Reliance, Winton and Superior. Superior "C" Mine won both the automobiles, with Lawrence Zajec, Section No. 2, winning the Dodge Brothers Sedan, and John Tomich, Section No. (2), the Chevrolet Sedan. Mr. Frank Stortz, Section Foreman, No. 2 Section, was awarded \$150.00 gold, and Austin Johnson, Section Foreman, No. 3 Section, \$100.00 gold.

equipment, gathering rock dust and air samples, and making investigations of all lost-time injuries. Also a member of the Safety Department was in attendance when the United States Geological Survey's representative made his inspections of Rock Springs, Winton and Superior mines.

Many evenings were spent in attending the monthly and bi-monthly district and sectional safety meetings, where moving pictures were shown, and at which pertinent questions relating to safety in and about the mines were discussed with the employes.

No mine rescue training was conducted during the year, but trained men are available at each of the five districts and all thirty sets of breathing apparatus, and gas masks, are kept in first-class condition, and available for use at any time in case of an emergency.

In January thirty-one men were trained for first aid instructors. They in turn gave instructions in first aid to the entire personnel of the Company, training 1885 employes, and 72 non-employes during the months of February, March and April. This was done in cooperation with the United States Bureau of Mines, the Bureau and the Company each issuing certificates for competency.

On June 10th, the annual first aid contest was held at Rock Springs in the Old Timers' Building. The number of teams participating in the event from the various districts were as follows:

Rock Springs	- 2 Men's
	3 Boy Scout
	4 Senior Girl Scout
	2 Junior Girl Scout
Reliance	- 1 Men's
	1 Boy Scout
	1 Senior Girl Scout

Winton	- 2 Men's
	1 Boy Scout
	2 Senior Girl Scout
	1 Junior Girl Scout
Superior	- 2 Men's
	2 Boy Scout
	2 Senior Girl Scout
	1 Junior Girl Scout
Hanna	- 3 Men's
	1 Boy Scout
	1 Senior Girl Scout
	1 Junior Girl Scout
Tono	- 1 Men's

The prizes were well distributed, with Hanna winning more first prizes than any of the other districts. Their men's teams won first and second prizes, consisting of cash awards of \$30.00 and \$20.00 respectively to each team member, and Tono's men's team won the third prize of \$10.00 to each team member. Hanna was also awarded the loving cup that had been held for two consecutive years by Tono's first aid team. The prizes given the Boy and Girl Scout teams were practically the same as the year before. The winning teams of the Boy Scouts were Hanna, Superior and Winton; the Senior Girl Scouts, Hanna, Winton and Superior; and the Junior Girl Scouts, Superior, Winton and Rock Springs.

A banquet was given at Rock Springs No. 4 Community Council for all Boy and Girl Scouts' teams, together with their troop captains, and several officials of the Company.

The winning Men's teams were guests at the Old Timers' banquet the following day.

An interesting part of the first aid contest was the splendid showing made by the men's Japanese team from Hanna. It did remarkable first aid work and was the first Japanese team to be entered in the annual contest.

One of the outstanding features of the first aid contest was when Mr. Scott Turner, Director of the United States Bureau of Mines, and President of the Joseph A. Holmes Safety Association, at the conclusion of the events, presented to The Union Pacific Coal Company through President McAuliffe, two certificates of honor, the first to Mine "C", Superior, Wyoming, commemorating the fact that this mine was operated for nearly 4.5 years (from July 6, 1927, through December 31, 1931) with an average of 133 employes working 1,284,536 man hours, and producing 1,019,753 tons of coal without a fatality. The second certificate of honor was awarded to Mine No. 4, Rock Springs, Wyoming, for having worked from April 17, 1923, through December 31, 1931, or more than 8.5 years, with an average of 216 employes working 3,167,712 man hours, and producing 2,476,122 tons of coal without a fatality. These certificates were framed and placed in the Community Council buildings at Rock Springs and Superior respectively.

In September Mr. George Dalrymple, Deputy Mine Inspector from Walsenburg, Colorado, made examinations of all the Wyoming mines of The Union Pacific Coal Company. He was accompanied at all times by either the Safety Engineer or the Ventilation Engineer.

Two high pressure rock dusting machines were put into use at Rock Springs and Superior districts, this making a total of four of these machines being used at the Rock Springs, Winton, Superior and Hanna districts. All mines are now complying with the Book of Standards in regard to rock dust barriers.

Another thing that no doubt contributed to a better safety record the last half of the year was the installation in all mines of the new Model

K Edison electric safety cap lamp, which increased the illumination approximately ten times over the Model E lamp.

The following, in the writer's opinion, are some of the contributing factors that have helped make 1932 the best safety year:

1. Dividing the mines into sections with a section foreman in charge of face operations, thereby securing closer supervision and more rigid discipline.
2. The awards to the sections and section foremen of the two automobiles and cash prizes, respectively.
3. Systematic timbering being enforced.
4. More concentrated and better mining methods.
5. Cleaner haulage ways.
6. Sprinkling of all working faces.
7. Installation of better cap lamps.
8. Wearing of protective clothing, such as hats and shoes, and some goggles.
9. The monthly and bi-monthly safety meetings as the educational part of the program.

The following tabulations show comparison of safety record made in 1932 with that made in 1931:

MAN SHIFTS WORKED PER INJURY

District	1931			1932			Increase	
	Man Shifts	(x) Injuries	Man Shifts Per Injury	Man Shifts	(x) Injuries	Man Shifts Per Injury	Man Shifts Per Injury	Per Cent
Rock Springs	122,182	48	2,545	95,173	23	4,138	1,593	62.6
Reliance	45,678	23	1,986	36,458	5	7,292	5,306	267.2
Winton	63,595	37	1,719	52,386	13	4,030	2,311	134.4
Superior	102,631	31	3,311	82,942	9	9,216	5,905	178.3
Hanna	62,112	19	3,451	53,943	10	5,394	2,443	70.8
All Districts	396,198	157	2,524	325,902	60	5,432	2,907	115.2
TONS PRODUCED PER INJURY								
All Districts	Tons	Injuries	Tons Per Injury	Tons	Injuries	Tons Per Injury	Tons Per Injury	Per Cent
	2,453,527	157	15,627	2,045,270	60	34,088	18,461	118
MAN SHIFTS WORKED PER FATALITY								
All Districts	Man Shifts	Fatalities	Man Shifts Per Fatality	Man Shifts	Fatalities	Man Shifts Per Fatality	Man Shifts Per Fatality	Per Cent
	396,198	6	66,033	325,902	1	325,902	259,869	393
TONS PRODUCED PER FATALITY								
All Districts	Tons	Fatalities	Tons Per Fatality	Tons	Fatalities	Tons Per Fatality	Tons Per Fatality	Per Cent
	2,453,527	6	408,921	2,045,270	1	2,045,270	1,636,349	400

(x) Includes fatalities.

ELECTRICAL DEPARTMENT

by

D. C. McKeehan, Chief Electrician

The power plants at Rock Springs and Hanna operated throughout the year without serious interruptions to the service.

The Rock Springs power plant generated 26,276,562 K. W. Hrs., distributed as follows:

Used in the power plant for auxiliaries, 2,623,850 K. W. Hrs., used in the boiler room 351,510 K.W.Hrs., used at No. 6 pumping plant 388,800 K.W.Hrs., sold to the Southern Wyoming Electric Company 4,915,301 K.W.Hrs., and charged to The Union Pacific Coal Company's Mines 17,997,101 K.W.Hrs.

To produce 1,640,888 tons of coal from The Union Pacific Coal Company's mines in the Rock Springs field required 10.9 K.W.Hrs. per ton.

The peak load on the Rock Springs power plant reached 9300 K.W., The greatest hourly output was 6900 K.W.Hrs., and the output for a twenty-four hour period was 108,600 K.W.Hrs. To carry this load it was necessary to operate three 2500 K.W. turbines, which left only the 1000 K.W. turbine for reserve.

Interruptions to the service from all causes, for the year, were as follows:

1. 13,000 volt circuit, six interruptions, totaling - 53 min.
2. No.4 Superior circuit, five interruptions, totaling 1 hr. 30 min.
3. No.1 Superior circuit, four interruptions, totaling 2 hrs. 35 min.
4. No.4 Mine underground, two interruptions, totaling 20 min.

5. No.4 Mine outside, four interruptions, totaling 30 min.
Town of Rock Springs, uninterrupted.

The Hanna plant supplied 2,019,300 K.W.Hrs., for mining purposes and sold 444,800 K.W.Hrs., to commercial customers.

ENGINEERING DEPARTMENT

by

C. E. Swann, Chief Engineer

J. L. Libby, Assistant Chief Engineer

During the year 1932 the Engineering Department personnel at Rock Springs has been materially reduced on account of the small amount of construction work to be done, and also because the mines were working only part time. At the beginning of the year the department consisted of a Chief Engineer, an Assistant Chief Engineer, six Engineers and a draughtsman, while at the close the department consisted of a Chief Engineer, an Assistant Chief Engineer, two Engineers, one helper, and a Draughtsman.

The outside districts had the same number of Resident Engineers, but in addition to their engineering duties, the Engineers had extra work under the direction of the Mine Superintendent.

The few items of construction included the following improvements:

Rock Springs District

1. Remodeled Community Building.
2. Installed sewer lines and plumbing for eight houses at No. 4.
3. Painted 21 houses.
4. Contracted shingling of 66 houses.
5. Supervised construction and made plans for new Church of Our Lady of Sorrows.
6. Laid new pipe line for Green River Water Works Company in Central Coal & Coke Company's Addition.
7. Supervised interior painting of 18 Wardell Court houses, Club House, Old Timers' Building and Headquarters Building.

Reliance District

1. Contracted shingling of 29 houses.
2. Painted 40 houses.

Winton District

1. Contracted shingling of 13 houses.
2. Painted 32 houses.

Superior District

1. Contracted shingling of 70 houses.

Hanna District

1. Contracted shingling of 21 houses and buildings.
2. Constructed new filling station on highway.

General Engineering

In addition to the usual work in connection with mine operations

1. Development plans and methods were worked up.
2. Time studies in connection with operation were made.
3. Rock dust and gas samples were analyzed for the Safety Department.
4. Surveys were made for Hanna Highway, also triangulation surveys locating mines, land lines, etc.
5. Handled repairs and testing of Railroad scales at mines.
6. Old mine properties in Colorado were investigated and reports were made thereon.
7. Utah properties were studied as to value from a tax standpoint, and report was made relative thereto.
8. Photographs were made for Safety and Employees' Magazine Departments.

9. Investigation was made of water situation in the old abandoned Rock Springs Mines, with reference to its possible effect on present operations.

10. Started work on Colorado land holdings of the Union Pacific Railroad Company with regard to mineral right values.

Draughting Department

In addition to the usual map work in connection with the mines, made sketches for the Employees' Magazine, graphs, blue printing and mechanical drawings, and performed special work as follows:

1. Made large map of the United States for Southern Wyoming Coal Operators' Association.
2. Made subdivision for the Railroad and Coal Company in connection with the Green River to Rock Springs highway, also new highway location with right of ways.
3. Made up Hanna Highway map with right of ways, including re-survey, and corrected description across Company property.
4. Maps were brought up to date for Green River Water Works Company, showing new lines, locating of hydrants, etc., at Rock Springs, Wyoming.
5. Made tax maps and records.

In addition to the above the department has made special reports on different Union Pacific Railroad Company lands, taken care of all the leases by outside companies working Union Pacific Railroad Company and The Union Pacific Coal Company lands, also a large amount of general work for companies under The Union Pacific Coal Company's management.

MECHANICAL DEPARTMENT

by

Arthur T. Honkell, General Master Mechanic

During the year 1932, there were no additions to power plant equipment.

Two major repair jobs were performed in the turbine room. One 2500 K.W. Allis Chalmers machine had for some time given trouble due to steam leakage past the dummies. This was due to the cylinder casting being eroded to such an extent that the grooves for two rows of dummies were entirely gone. The steam leakage caused rapid scaling of the sealing glands and an excessive end thrust. This turbine was dismantled and by the use of a boring bar, the cylinder was bored out to receive a large cast iron ring in which the proper number of dummy grooves were machined. This ring is held in place by countersunk bolts and a dovetail groove. The machine is now operating nicely and thrust troubles appear to have been eliminated.

The 2500 K.W. General Electric turbine which was reported last year as having a cracked front-head was also repaired. The cracked head was located centrally in the machine and necessitated complete dismantling of the unit. A complete new head and nozzle plate was installed and the unit carefully realigned in assembling and it is now in good operating condition. These repairs were handled locally without the use of factory repair men.

At Winton, a new pump installation was completed during the year. This pump handles the drainage from No. 1 and No. 3 Mines through

a borehole to the surface. A 50,000-gallon tank on the surface into which the pump discharges, contains ample water for sprinkling during the periods in which the pump is not operating.

SUMMARY OF OPERATIONS OF MERCHANDISE STORES

By E. R. Jefferis

Manager of Stores

Year Ending December 31, 1932

During 1932 the Store Department kept expenses well controlled, merchandise stocks adequate and inventories reduced to a level of current values.

Sales were reduced, but not below the regular percentage to pay rolls.

Earnings were satisfactory on the reduced volume of sales and existing inventories.

1932 was perhaps the hardest year this Department has experienced during the present decade. The following years will benefit by rising markets, moderate wage adjustments, and a cheaper dollar, which should stimulate turnover.

STATEMENT OF OPERATIONS OF MERCHANDISE STORES

Year ending December 31, 1932

Compared with Corresponding Period of Previous Year

	Rock Springs	Reliance	Winton	Superior	Hanna	Total
Total Sales, 1931	\$260,600.63	\$88,892.02	\$117,867.89	\$171,118.82	\$195,376.48	\$833,855.84
Total Sales, 1932	194,612.33	67,740.70	93,224.68	134,510.04	164,529.74	654,617.49
Increase or Decrease	65,988.30	21,151.32	24,643.21	36,608.78	30,846.74	179,238.35
Gross Revenue, 1931	78,811.66	22,889.16	30,325.50	44,122.32	43,479.88	219,628.52
Gross Revenue, 1932	57,032.52	17,509.95	22,727.72	33,045.73	37,983.75	168,299.67
Increase or Decrease	21,779.14	5,379.21	7,597.78	11,076.59	5,496.13	51,328.85
Total Operating Expenses and Taxes, 1931	56,581.08	19,478.73	22,646.64	32,995.60	35,061.90	166,763.95
Total Operating Expenses and Taxes, 1932	45,497.99	15,126.88	17,951.94	25,021.12	30,717.48	134,315.41
Increase or Decrease	11,083.09	4,351.85	4,694.70	7,974.48	4,344.42	32,448.54
Net Revenue, 1931	22,230.58	3,410.43	7,678.86	11,126.72	8,417.98	52,864.57
Net Revenue, 1932	11,534.53	2,383.07	4,775.78	8,024.61	7,266.27	33,984.26
Increase or Decrease	10,696.05	1,027.36	2,903.08	3,102.11	1,151.71	18,880.31
Per Cent Gross Revenue to Sales, 1931	30.2	25.7	25.7	25.8	22.3	26.3
Per Cent Gross Revenue to Sales, 1932	29.3	25.8	24.4	24.6	23.1	25.7
Increase or Decrease	0.9	0.1	1.3	1.2	0.8	0.6
Per Cent Oper. Exp. & Taxes to Sales, 1931	21.7	21.9	19.2	19.3	18.0	20.0
Per Cent Oper. Exp. & Taxes to Sales, 1932	23.4	22.3	19.3	18.6	18.7	20.5
Increase or Decrease	1.7	0.4	0.1	0.7	0.7	0.5
Per Cent Net Revenue to Sales, 1931	8.5	3.8	6.5	6.5	4.3	6.3
Per Cent Net Revenue to Sales, 1932	5.9	3.5	5.1	6.0	4.4	5.2
Increase or Decrease	2.6	0.3	1.4	0.5	0.1	1.1
Merchandise Stock, 1931	57,481.07	21,839.93	22,455.16	37,313.78	49,518.40	188,608.34
Merchandise Stock, 1932	48,802.51	16,986.18	19,804.42	34,893.34	43,042.78	163,529.23
Increase or Decrease	8,678.56	4,853.75	2,650.74	2,420.44	6,475.62	25,079.11

Year Ending December 31, 1932

Month	Rock Springs Store	Reliance Store	Winton Store	Superior Store	Hanna Store	Total
January	\$ 2,032.28	\$ 673.78	\$ 890.35	\$ 1,215.74	\$ 1,419.00	\$ 6,431.23
February	1,835.30	752.96	795.41	1,080.43	1,299.74	5,763.84
March	1,918.14	709.59	802.17	1,148.14	1,305.35	5,883.39
April	1,918.53	708.73	794.44	1,106.39	1,394.66	5,922.75
May	1,918.10	725.33	800.66	1,099.56	1,392.80	5,936.45
June	2,012.20	789.32	846.01	1,175.84	1,401.25	6,224.62
July	1,954.14	792.15	801.89	1,050.67	1,318.52	5,917.37
August	2,003.20	762.48	812.26	1,101.07	1,352.90	6,031.91
September	2,007.92	672.34	802.00	1,064.32	1,342.50	5,889.08
October	2,073.64	637.00	802.03	1,086.36	1,315.24	5,914.27
November	2,071.25	637.00	860.66	1,085.66	1,338.00	5,992.57
December	2,108.75	637.00	916.81	1,095.32	1,371.50	6,129.38
TOTAL	\$23,853.45	\$8,697.68	\$9,924.69	\$13,309.50	\$16,251.54	\$72,036.86

COMPARATIVE STATEMENT
of
MATERIAL ON HAND, INCLUDING SCRAP
Years Ending December 31, 1931 and 1932

Location	1931	1932	Inc. - Black Dec. - Red
Rock Springs	\$ 66,255.83	\$ 62,538.33	\$ 3,717.50
Reliance	31,709.91	23,249.32	8,460.59
Winton	39,797.75	27,209.77	12,587.98
Superior	65,609.50	54,754.31	10,855.19
Hanna	29,986.91	24,445.13	5,541.78
Engineering Dept.	1,355.09	1,360.66	5.57
Total	\$234,714.99	\$193,557.52	\$41,157.47

During the years ending December 31, 1931, and December 31, 1932, the value of material transferred between the mining districts was as follows:

1931.....\$30,281.33

1932..... 16,755.48

Discounts taken account cash payment of invoices during the years 1931 and 1932 were as follows:

1931.....\$ 5,426.93

1932..... 3,315.68

COMPARATIVE STATEMENT

of

SCRAP SHIPMENTS

Years Ending December 31, 1931 and 1932

Location	1931	1932	Inc. - Black Dec. - Red
Rock Springs	\$ 342.69		\$ 342.69
Reliance			
Winton			
Superior			
Hanna	303.09		303.09
Total	\$ 645.78		\$ 645.78

REPORT OF FANS
Year Ending December 31, 1932

Location	Type	Size	R.P.M.	Intake Cubic Feet Per Minute	Return Cubic Feet Per Minute	Water Gauge
Rock Springs No. 2 4 & 8	Guibal Jeffrey	20' 12'x6'	80 134	76,000 232,000	87,000 238,000	1.3" 2.4"
Reliance No. 1 4 4	Jeffrey Murphy Sturtevant	8'x5' 12' 4'x3'	92 135 500	50,000 52,000 40,000	54,000 57,000 43,000	.4" .55" .45"
Winton No. 1 3 7	Sirocco Buffalo Sirocco	4' 6' 6'	590 178 200	47,000 81,000 80,000	50,000 85,000 85,000	.65" 1.1" 1.2"
Superior "B" "C" "D" "E"	Vulcan Vulcan Vulcan Jeffrey	8½'x5' 8½'x5' 8'x5' 8'x5'	143 130 200 230	72,000 63,000 71,000 54,000	75,000 67,000 73,000 58,000	1.4" 1.1" 2.1" 2.5"
Hanna No. 2 4 6	Guibal Guibal Sturtevant	20' 20' 4½'x4'	40 98 400	39,000 89,000 30,500	42,000 93,000 32,000	.3" 2.3" 1.2"

Month	Turbines, Generators, Operation & Maintenance	B O I L E R S						Production Cost	Depreciation	General Expense	Total Cost	Total K.W.H.	Com'l. K.W.H.
		Operation	Repairs	Washing	Stoker	Coal	Water						
Jan.	\$.00079	\$.00073	\$.00037	\$.00015	\$.00003	4.0# \$.00332	2.9 gal \$.00017	\$.00556	\$.00113	\$.00002	\$.00671	2,143,426	478,376
Feb.	.00069	.00066	.00022	.00018	.00001	3.9# .00376	2.5 gal .00014	.00566	.00112	.00002	.00680	2,163,479	455,149
Mar.	.00096	.00083	.00026	.00022	.00002	4.2# .00432	2.9 gal .00015	.00675	.00128	.00002	.00806	1,882,881	416,262
Apr.	.00085	.00077	.00045	.00017	.00001	3.9# .00355	2.8 gal .00012	.00592	.00127	.00002	.00721	1,906,510	388,691
May	.00132	.00084	.00038	.00016	.00005	3.7# .00398	2.9 gal .00021	.00694	.00131	.00003	.00828	1,839,958	369,576
June	.00095	.00088	.00023	.00020	.00030	4.1# .00394	.00032	.00682	.00140	.00002	.00824	1,726,094	367,456
July	.00088	.00074	.00056	.00005	.	3.4# .00359	3.2 gal .00020	.00602	.00112	.00003	.00717	1,686,254	377,616
Aug.	.00107	.00067	.00069	.00008	.00008	4.7# .00578	2.9 gal .00029	.00658	.00100	.00002	.00960	1,883,734	373,579
Sept.	.00065	.00061	.00054	.00013	.00007	3.7# .00323	3.7 gal .00023	.00546	.00097	.00002	.00645	1,945,362	390,869
Oct.	.00061	.00060	.00020	.00013	.00001	4.1# .00352	2.7 gal .00017	.00524	.00090	.00002	.00616	2,091,275	398,784
Nov.	.00071	.00063	.00023	.00014	.00001	4.7# .00346	3.0 gal .00020	.00538	.00100	.00002	.00640	1,867,119	379,226
Dec.	.00073	.00057	.00032	.00013	.00001	4.7# .00348	2.4 gal .00016	.00540	.00087	.00002	.00629	2,165,110	519,717
Total & Avr.	\$.55084	\$.00070	\$.00037	\$.00015	\$.00004	4.2# \$.00382	2.8 gal \$.00030	\$.00622	\$.00111	\$.00002	\$.00735	23,301,202	4,915,301

ANALYZED STATEMENT OF COST PER KILO-WATT HOUR OF POWER AT HAINA, WYOMING

Year Ending December 31, 1932

Month	Turbines, Generators, Operation & Maintenance	B O I L E R S					Produce- tion Cost	Deprec- iation	General Expense	Total Cost	Total K.W.H.	Com'l. K.W.H.
		Operation	Repairs	Washing	Stoker Repairs	Coal						
Jan.	\$.00398	\$.00067	\$.00025	\$.00037	\$.00001	3.0# \$.00220	2.4 gal \$.00081	\$.00829	\$.00011	\$.01018	233,400	48,100
Feb.	.00298	.00070	.00026	.00035		2.9# \$.00233	2.5 gal \$.00101	.00763	.00011	.00955	229,800	50,100
Mar.	.00414	.00070	.00025	.00022		3.3# \$.00263	2.1 gal \$.00083	.00877	.00012	.01086	211,900	46,300
Apr.	.00369	.00076	.00037	.00030	.00002	3.4# \$.00276	2.5 gal \$.00100	.00890	.00013	.01114	197,000	40,500
May	.00427	.00088	.00045	.00049	.00001	4.0# \$.00348	2.5 gal \$.00102	.01060	.00015	.01313	174,600	27,700
June	.00476	.00098	.00041	.00052	.00005	4.4# \$.00380	2.7 gal \$.00107	.01159	.00016	.01446	153,900	26,300
July	.00482	.00070	.00035	.00024		3.9# \$.00360	2.7 gal \$.00104	.01075	.00015	.01331	176,800	30,400
Aug.	.00431	.00063	.00032	.00034		3.7# \$.00357	3.0 gal \$.00121	.01038	.00013	.01276	189,600	30,900
Sept.	.00353	.00055	.00037	.00031		3.3# \$.00240	2.6 gal \$.00107	.00823	.00013	.01045	203,800	29,800
Oct.	.00331	.00049	.00026	.00030		2.9# \$.00217	2.1 gal \$.00085	.00738	.00011	.00925	243,000	35,700
Nov.	.00315	.00050	.00024	.00027		2.9# \$.00208	1.7 gal \$.00070	.00694	.00011	.00890	230,600	39,500
Dec.	.00333	.00057	.00023	.00029		3.2# \$.00222	1.9 gal \$.00085	.00749	.00012	.00932	219,700	39,500
Total & Avr.	\$.00379	\$.00066	\$.00031	\$.00033	\$.00001	3.3# \$.00269	2.3 gal \$.00094	\$.00873	\$.00013	\$.01089	2,464,100	444,800

TONS OF COAL PRODUCED MONTHLY

ALL MINES

Year Ending December 31st, 1932

Month	Rock Springs	Reliance	Winton	Superior	Hanna	Total
Jan.	46,321.65	18,897.20	21,466.60	42,467.70	34,619.60	165,772.75
Feb.	47,138.85	23,546.65	28,956.75	55,732.30	34,464.40	169,838.95
Mar.	45,214.40	19,322.70	27,784.60	43,713.65	36,082.50	172,117.85
Apr.	42,590.30	17,545.30	23,821.90	42,865.55	26,879.55	153,702.60
May	41,475.35	20,657.00	25,577.90	39,844.35	32,091.20	159,645.80
June	40,960.75	11,485.40	22,765.55	30,106.60	31,400.55	136,718.85
July	16,499.30	18,953.85	16,844.10	33,593.10	16,758.20	102,648.55
Aug.	43,835.00	18,287.90	24,702.50	47,023.45	35,010.95	168,859.80
Sept.	46,584.70	23,544.35	28,656.80	45,960.00	36,217.85	180,963.70
Oct.	65,988.90	32,681.70	35,587.95	62,061.70	45,208.40	241,528.65
Nov.	57,643.00	23,320.95	27,685.20	45,648.40	40,589.30	195,086.85
Dec.	50,021.80	22,149.10	25,145.15	46,010.55	35,059.05	178,385.65
Total	546,274.00	250,392.10	309,195.00	535,027.35	404,381.55	2,045,270.00

1,640,988.45

TONS OF COAL USED FOR STEAM
Year Ending December 31, 1932

Month	Rock Springs Slack	Hanna Slack	Total
January	4,308.05	1,395.00	5,703.05
February	4,298.45	1,305.00	5,603.45
March	4,037.30	1,395.00	5,432.30
April	3,721.70	1,350.00	5,071.70
May	3,861.40	1,395.00	5,256.40
June	3,565.80	1,350.00	4,915.80
July	3,150.70	1,395.00	4,545.70
August	4,441.30	1,395.00	5,836.30
September	3,585.00	1,350.00	4,935.00
October	4,281.40	1,395.00	5,676.40
November	4,345.20	1,350.00	5,695.20
December	5,095.75	1,395.00	6,490.75
Total	48,692.05	16,470.00	65,162.05

CLASSIFICATION OF COAL PRODUCED

Year Ending December 31, 1932

Location	Lump	Nine Run	Egg	Nut	Slack	Total
Rock Springs No. 4	1,553.80	215,224.35			6,273.60	223,051.75
8	8,135.15	216,178.50	6,578.70	93.45	92,236.45	323,222.25
Total	9,688.95	431,402.85	6,578.70	93.45	98,510.05	546,274.00
Reliance No. 1	5,987.05	237,857.40		390.95	6,146.70	250,392.10
Winton No. 1	2,600.00	226,948.25	7,325.90		72,320.85	309,195.00
Superior "B"		195,368.75				195,368.75
"C"	4,019.50	169,794.00				173,813.50
"D"		165,845.10				165,845.10
Total	4,019.50	531,007.85				535,027.35
Hanna No. 2	4,390.55	102,667.95				107,058.50
4	30,236.45	203,163.45			47,506.40	280,906.30
6	14.85	16,401.90				16,416.75
Total	34,641.85	322,233.30			47,506.40	404,301.55
All Mines	56,937.35	1,749,449.65	13,904.60	492.40	224,486.00	2,045,270.00

COMPARATIVE STATEMENT OF COAL MINED REDUCED TO RUN OF MINE BASIS

WITH COST AND NUMBER OF DAYS WORKED

Years Ending December 31, 1930, 1931 & 1932

Location	Year Ending December 31, 1930			Year Ending December 31, 1931			Year Ending December 31, 1932		
	Days Worked	Tons Mined	Cost Per Ton	Days Worked	Tons Mined	Cost Per Ton	Days Worked	Tons Mined	Cost Per Ton
Rock Springs									
No. 4	223	345,075	\$1.703	161	270,887	\$1.769	132½	223,052	\$1.614
8	253½	508,988	1.618	196	442,586	1.569	150	323,222	1.553
Total		854,063	1.668		713,473	1.660		546,274	1.600
Reliance									
No. 1	230	330,564	1.703	180½	271,042	1.713	137	250,392	1.379
Winton									
No. 3	238½	198,527	1.545	190	171,562	1.731			
1	238½	233,433	1.677	190	212,174	1.600	135	309,195	1.743
Total		431,960	1.616		383,736	1.659	135	309,195	1.743
Superior									
"B"	234½	218,764	1.673	180	219,358	1.651	124	195,369	1.463
"C"	234	244,676	1.726	182	225,116	1.617	125	173,813	1.512
"E"	226	244,685	1.816	158	197,792	1.830	120	165,845	1.712
Total		708,125	1.758		642,266	1.711		535,027	1.574
Hanna									
No. 2	197½	113,539	1.641	154½	96,754	1.615	142½	107,059	1.390
4	198	372,233	1.425	197	329,857	1.341	202	280,906	1.400
6				234	16,399	2.526	193½	16,417	2.474
Total		485,772	1.475		443,010	1.445		404,382	1.441
Gumbarland									
No. 1	107	87,169	1.748						
All Mines		2,897,653	\$1.657		2,453,527	\$1.640		2,045,270	\$1.556

Note 1: Cumberland Mining District closed down June 19, 1930.

Note 2: 3,536.85 tons recovered from No. 6 Mine, Hanna, during the year 1930 is included in Hanna No. 4 Mine production, separate costs not having been kept.

Note 3: Effective January 1, 1931, mines working at Winton were Nos. 1 and 3, the transferring of all men from No. 7 Mine to No. 1 Mine completely closing No. 7 Mine.

Note 4: Effective January 1, 1932, mine working at Winton is No. 1, the transferring of all men from No. 3 Mine to No. 1 Mine completely closing No. 3 Mine.

Note 5: Wage reduction effective July 1, 1932.

COMPARATIVE STATEMENT OF
TOTAL TONS MINED AND TOTAL COST PER TON
ALL MINES

Years Ending December 31, 1928, 1929, 1930, 1931 & 1932

Month	Year 1928		Year 1929		Year 1930		Year 1931		Year 1932	
	Total Tons	Total Cost	Total Tons	Total Cost	Total Tons	Total Cost	Total Tons	Total Cost	Total Tons	Total Cost
Jan.	250,928.30	\$2.080	264,115.00	\$1.944	258,362.15	\$1.910	184,588.79	\$2.056	165,772.75	\$2.053
Feb.	207,678.05	2.143	248,228.60	1.929	213,757.15	1.978	173,470.45	2.011	169,838.95	1.901
Mar.	230,943.90	2.159	250,043.50	1.983	180,684.55	2.098	208,597.65	1.907	172,117.85	1.946
Apr.	236,616.40	2.121	220,169.90	1.985	218,492.35	1.937	218,184.15	1.904	153,702.60	2.015
May	218,525.40	2.093	223,807.10	1.965	209,197.55	1.988	207,327.05	1.918	159,645.80	1.949
June	203,366.85	2.202	208,451.05	1.875	191,427.90	2.044	187,644.00	1.998	136,718.85	2.065
July	208,021.80	2.115	215,818.85	1.927	208,768.65	1.963	166,719.25	2.026	102,648.55	2.040
Aug.	281,711.60	1.970	290,232.20	1.789	250,570.25	1.978	203,234.50	1.920	168,859.80	1.572
Sept.	280,213.20	2.041	278,165.65	1.815	283,578.65	1.825	219,141.75	1.835	180,963.70	1.552
Oct.	301,583.25	1.950	335,517.45	1.697	320,007.40	1.761	245,197.15	1.833	241,528.65	1.375
Nov.	269,440.55	2.005	286,985.10	1.740	278,091.60	1.822	221,590.25	1.848	195,086.85	1.404
Dec.	238,360.55	1.857	239,097.85	1.979	264,715.05	1.727	217,832.25	1.570	178,385.65	1.480
Total	2,927,389.85	2.053	3,060,632.25	\$1.875	2,897,632.25	\$1.901	2,453,527.24	\$1.893	2,045,270.00	\$1.742

Note: Wage reductions effective December 1, 1928, and July 1, 1932.

"Total Cost" is "Cost Per Ton - All Coal Sold," Line 58, Form 220.

MINE COST OF COAL LOADED BY SHAKING CONVEYOR LOADERS
NO. 4 MINE, ROCK SPRINGS, WYOMING
Year ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period				
Jan.	5	\$ 2,380.86	\$.529	\$ 26.60	\$.006	\$ 238.92	\$.053	\$ 66.11	\$.015	\$ 76.51	\$.017			\$ 2,791.00	\$ 2,791.00	4,501.00	4,501.00	\$.620	\$.620	104	43	288	15.6
Feb.	5	2,816.00	.520	20.31	.004	325.30	.060	3.18	.001	91.99	.017			3,256.78	6,047.78	5,411.00	9,912.00	.602	.610	124	44	347	15.6
March	5	2,685.51	.576	13.38	.003	230.52	.050			65.61	.018			3,015.02	9,062.80	4,660.00	14,572.00	.647	.622	114	41	334	14.0
April	5	2,431.36	.554			189.24	.043	17.44	.004	79.07	.018			2,717.11	11,779.91	4,393.00	18,965.00	.619	.621	108	41	302	14.5
May	5	2,791.30	.521	54.33	.006	226.54	.043	39.99	.007	91.12	.017			3,185.28	14,965.19	5,359.90	24,324.90	.594	.615	117	46	336	16.0
June	5	2,358.08	.554	20.31	.005	209.78	.049	253.21	.060	76.59	.018			2,917.97	17,883.16	4,254.55	28,579.45	.686	.626	101	42	289	14.7
July	5	969.40	.483	5.60	.003	111.08	.055	39.95	.020	34.11	.017			1,160.34	19,043.50	2,006.75	30,586.20	.578	.623	55	36	139	14.4
Aug.	6	1,954.68	.465	183.56	.044	202.14	.048	78.39	.018	71.54	.017			2,490.31	21,533.81	4,208.05	34,794.25	.592	.619	102	41	335	12.6
Sept.	9	2,760.24	.510	48.60	.009	235.50	.044	119.17	.022	92.00	.017			3,255.51	24,789.32	5,411.90	40,206.15	.602	.617	143	38	444	12.2
Oct.	9	5,556.98	.464	41.60	.003	571.13	.046	464.32	.039	203.56	.017			6,837.59	31,626.91	11,974.50	52,180.65	.571	.606	306	39	883	13.6
Nov.	9	4,749.96	.448	40.72	.004	517.80	.049	7.52	.001	190.67	.018			5,506.67	37,133.58	10,593.25	62,773.90	.520	.592	252	42	750	14.1
Dec.	9	4,787.34	.462	10.34	.001	460.42	.046	135.13	.013	186.48	.018			5,599.71	42,733.29	10,360.35	73,134.25	.540	.584	234	44	755	13.7
Total		\$ 36,241.71	\$.496	\$ 445.55	\$.006	\$ 3,540.37	\$.048	\$ 1,226.41	\$.017	\$ 1,279.25	\$.017			\$ 42,733.29		73,134.25		\$.564		1,760	42	5,202	14.1

Note: 4 25-H.P. Coscos (new) were purchased, 2 being installed during August and 2 during September, 1932.
(x) Proportion of labor and material, "Maintenance and Repairs of Accessories."

MINE COST OF COAL LOADED BY SCRAPER LOADERS
NO. 8 MINE, ROCK SPRINGS, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period				
Jan.	2	\$ 4,206.16	\$.511	\$ 316.30	\$.039	\$ 477.02	\$.056	\$ 61.57	\$.007	\$ 172.65	\$.021	\$ 234.50	\$.029	\$ 5,470.40	\$ 5,470.40	8,231.00	8,231.00	\$.665	\$.665	32	257	544	15.1
Feb.	2	3,397.57	.524	201.60	.031	361.17	.059	10.52	.001	136.18	.021	219.34	.034	4,346.38	9,616.78	6,485.00	14,716.00	.670	.667	26	249	435	14.9
Mar.	2	3,153.55	.436	314.86	.044	554.24	.077	45.60	.006	151.75	.021	101.20	.014	4,321.20	14,137.96	7,226.00	21,942.00	.598	.644	26	278	388	18.6
Apr.	2	3,226.77	.429	193.40	.026	346.98	.046	64.59	.011	157.81	.021	216.20	.029	4,225.75	18,363.73	7,515.00	29,457.00	.562	.623	24	313	413	18.2
May	2	2,597.50	.362	115.49	.017	502.16	.074	126.10	.019	149.45	.022	261.25	.041	3,773.95	22,137.66	6,793.00	36,250.00	.555	.611	22	309	326	20.7
June	2	3,321.05	.419	123.36	.016	421.55	.053	213.79	.027	166.26	.021	234.76	.030	4,460.81	26,618.49	7,917.00	44,167.00	.566	.603	25	317	427	18.5
July	2	985.20	.465	46.92	.022	160.46	.076	3.08	.001	44.52	.021	72.55	.034	1,312.73	27,931.22	2,120.00	46,287.00	.619	.603	12	177	166	12.6
Aug.	2	2,437.00	.299	143.12	.017	420.31	.052			171.12	.021	137.40	.017	3,308.95	31,240.17	8,149.00	54,436.00	.406	.574	24	340	416	19.6
Sept.	2	2,695.48	.343	104.20	.013	458.19	.056	625.87	.080	164.98	.021	350.37	.045	4,399.09	35,639.26	7,856.00	62,292.00	.560	.572	23	342	455	17.3
Oct.	2	3,581.04	.306	284.84	.024	769.95	.066	99.07	.008	246.22	.021	282.20	.024	5,263.32	40,902.56	11,725.80	74,017.80	.449	.553	34	345	630	18.6
Nov.	2	3,466.29	.322	195.22	.018	707.33	.065			226.30	.021	224.63	.021	4,819.77	45,722.35	10,776.00	84,793.80	.447	.539	30	359	585	18.4
Dec.	2	2,866.17	.341	102.86	.012	1,010.81	.120	221.63	.026	176.99	.021	565.16	.067	4,945.62	50,667.97	8,428.00	93,221.80	.587	.543	26	324	482	17.5
Total		\$ 35,937.76	\$.385	\$ 2,142.19	\$.023	\$ 6,210.17	\$.067	\$ 1,493.82	\$.016	\$ 1,964.43	\$.021	\$ 2,919.58	\$.031	50,667.97		93,221.80		\$.543		304	307	5,271	17.7

Note: There are three Vulcan scrapers in this mine. One is held for a spare.
(x) Proportion of labor and material, "Maintenance and Repairs of Accessories."

MINE COST OF COAL LOADED BY SHAKING CONVEYOR LOADERS
NO. 6 MINE, ROCK SPRINGS, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period				
Jan.	13	\$ 8,945.87	\$.546	\$ 484.21	\$.029	\$ 1,267.35	\$.077	\$ 471.50	\$.029	\$ 278.51	\$.017	\$ 466.40	\$.029	\$ 11,913.84	\$ 11,913.84	16,383.00	16,383.00	\$.727	\$.727	369	44	1,021	16.0
Feb.	13	7,390.09	.527	592.06	.042	802.80	.057	151.56	.011	238.27	.017	475.23	.034	9,650.61	21,564.45	14,016.00	30,399.00	.688	.710	322	44	902	15.5
Mar.	13	6,102.76	.539	475.13	.032	670.90	.045	207.67	.014	270.34	.016	211.12	.014	9,937.92	31,502.37	15,019.00	45,418.00	.662	.693	319	47	954	15.7
Apr.	13	7,811.22	.565	656.91	.047	631.57	.046	180.50	.013	235.01	.017	397.66	.029	9,912.67	41,415.24	13,624.00	59,242.00	.717	.699	291	47	941	14.7
May	14	6,238.31	.578	546.80	.051	714.13	.066	524.08	.048	194.42	.016	447.32	.041	8,665.06	50,080.30	10,801.00	70,043.00	.802	.715	262	41	758	14.3
June	13	6,331.22	.580	421.85	.039	811.36	.074	171.24	.016	196.38	.018	324.40	.030	8,256.45	58,336.75	10,910.00	80,953.00	.757	.721	314	35	790	13.8
July	13	2,232.28	.544	140.16	.034	372.19	.091	80.44	.020	63.82	.021	140.38	.034	3,049.27	61,386.02	4,101.00	85,054.00	.744	.722	128	32	374	11.0
Aug.	12	5,771.50	.497	353.86	.051	1,251.30	.108	202.46	.017	243.81	.021	194.93	.017	8,017.68	69,403.90	11,610.00	98,664.00	.691	.718	263	44	956	12.1
Sept.	13	5,816.42	.479	330.37	.027	645.98	.053	444.37	.037	206.36	.017	548.92	.045	7,992.44	77,396.34	12,140.00	108,804.00	.658	.711	299	41	957	12.7
Oct.	13	7,742.13	.447	428.40	.025	865.61	.050	125.07	.007	234.54	.017	396.81	.023	9,652.56	87,249.90	17,326.70	126,130.70	.569	.692	439	40	1,220	14.2
Nov.	11	6,655.58	.417	347.44	.022	1,005.14	.063	131.70	.008	267.35	.018	336.95	.021	8,764.16	96,013.06	15,963.80	142,094.50	.549	.676	370	43	1,021	15.6
Dec.	12	5,701.67	.426	305.43	.023	913.98	.068	146.34	.011	240.96	.018	911.56	.068	8,219.94	104,233.00	13,386.80	155,481.30	.614	.670	310	43	886	15.1
Total		\$ 78,739.05	\$.506	\$5,082.64	\$.033	\$ 9,952.31	\$.064	\$2,836.93	\$.018	\$2,769.79	\$.018	\$ 4,852.28	\$.031	\$104,233.00		155,481.30		\$.670		3,686	42	10,780	14.4

Note: There are fourteen shaking conveyors installed in this mine.

During the period January to July, inclusive, 1 pit car loader operated with shaking conveyors. Number of machines reported does not include pit car loader, as this loader was used as an auxiliary, and is not considered a separate unit.

(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY PIT CAR LOADERS
NO. 8 MINE, ROCK SPRINGS, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Men Shifts	Average Men Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period				
Jan.	15	\$ 3,687.22	\$.615	\$ 139.46	\$.023	\$ 56.70	\$.009	\$ 37.08	\$.006	\$ 77.94	\$.013	\$ 170.86	\$.029	\$ 4,169.26	\$ 4,169.26	5,995.00	5,995.00	\$.695	\$.695	222	27	408	14.7
Feb.	15	3,427.89	.615	121.86	.022	149.28	.027	18.37	.003	78.04	.014	189.27	.034	3,984.71	8,153.93	5,574.00	11,569.00	.715	.705	195	29	359	15.5
Mar.	16	3,713.92	.616	110.72	.018	248.30	.041	54.72	.009	78.43	.013	84.53	.014	4,290.62	12,444.61	6,033.00	17,602.00	.711	.707	202	30	388	15.5
Apr.	16	3,400.06	.615	110.72	.020	138.36	.025	2.50		71.87	.013	158.29	.029	3,881.80	16,326.41	5,528.00	23,130.00	.702	.706	191	29	374	14.8
May	16	3,442.53	.615	137.64	.025	62.67	.011	22.17	.004	78.37	.014	231.34	.041	3,974.72	20,301.13	5,597.60	28,727.60	.710	.707	176	32	549	16.0
June	16	3,758.10	.615	115.57	.019	77.90	.012	219.59	.036	79.44	.013	181.45	.030	4,432.05	24,733.18	6,110.65	34,838.25	.725	.710	192	32	376	16.2
July	16	1,198.29	.500	47.80	.020			25.41	.011	28.76	.012	81.98	.034	1,362.24	26,115.42	2,596.55	37,254.80	.577	.701	81	30	183	13.1
Aug.	16	2,874.24	.500	68.68	.012	94.44	.016	27.07	.005	68.98	.012	97.04	.017	3,230.45	29,345.87	5,748.90	42,983.70	.562	.683	225	26	395	14.6
Sept.	16	2,969.33	.500	60.44	.010			63.50	.011	63.14	.014	268.62	.045	3,445.03	32,790.90	5,938.60	48,922.30	.580	.670	199	30	386	15.4
Oct.	15	3,826.59	.500	75.28	.010	98.40	.013	21.54	.003	76.53	.010	189.29	.024	4,287.63	37,078.53	7,653.15	56,575.45	.560	.655	267	29	535	14.3
Nov.	16	3,384.34	.504	80.62	.012	41.91	.006	160.70	.024	73.90	.011	140.39	.021	3,681.86	40,960.39	6,717.55	63,293.00	.578	.647	237	28	466	14.4
Dec.	16	2,569.29	.500	65.23	.013	183.21	.036	11.43	.002	56.52	.011	346.39	.067	3,232.07	44,192.46	5,158.15	68,431.15	.629	.646	245	21	368	14.0
Total		\$ 36,251.80	\$.559	\$1,134.04	\$.017	\$ 1,151.17	\$.017	\$ 664.08	\$.010	\$ 851.92	\$.012	\$ 2,139.45	\$.031	\$ 44,192.46		68,431.15		\$.646		2,432	28	4,587	14.9

Note: Pit Car Loaders in this mine operated on a contract basis, the workmen being paid at a tonnage rate. There are 17 pit car loaders installed in this mine. During December, 1932, 4 Northerns and 1 Red Devil were transferred from Reliance but not installed. Also during December, 1932, there were transferred from Superior (originally at Winton) 2 Red Devils. 2 Red Devils were purchased from the Washington Union Coal Company, Tono, Washington. These loaders have not yet been installed.

(x) Proportion of labor and material, "Maintenance and Repairs of Accessories."

MINE COST OF COAL LOADED BY SCRAPER LOADERS
NO. 1 MINE, RELIANCE, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period	Month	Month	Month	Month
Jan.	1	\$ 1,566.08	\$.452	\$ 60.50	\$.017	\$ 127.65	\$.037	\$ 66.91	\$.019	\$ 69.32	\$.020	\$ 65.43	\$.025	\$ 1,975.89	\$ 1,975.89	3,466.10	3,466.10	\$.570	\$.570	14	248	199	17.4
Feb.	1	1,618.56	.401	10.51	.003	221.61	.055			60.62	.020	151.37	.038	2,082.69	4,058.58	4,031.10	7,497.20	.517	.541	14	288	198	20.4
Mar.	1	1,377.84	.430	14.99	.004	153.44	.048	3.02	.001	64.11	.020	99.74	.031	1,713.14	5,771.72	3,205.70	10,702.90	.534	.539	11	291	178	18.0
Apr.	1	1,117.13	.367	.90		145.51	.050			57.71	.020	196.05	.069	1,519.30	7,291.02	2,885.55	13,588.45	.526	.537	10	269	139	20.8
May	1	1,454.82	.406	29.97	.008	119.94	.034	26.90	.008	75.38	.021	190.47	.053	1,899.46	9,190.50	3,769.00	17,357.45	.532	.529	12	314	186	20.2
June	1	1,012.81	.499	1.81	.001	262.98	.130	4.27	.002	40.56	.020	84.68	.042	1,407.11	10,597.61	2,027.90	19,385.35	.694	.547	7	290	129	15.7
July	1	1,031.44	.329	1.35		107.24	.034	1.57	.001	62.68	.020	96.55	.031	1,300.83	11,898.44	3,134.00	22,519.35	.415	.528	11	265	165	19.0
Aug.	1	987.08	.355	31.19	.011	73.13	.026			55.14	.020	90.38	.033	1,236.92	13,135.36	2,757.15	25,276.50	.446	.520	10½	263	164	16.8
Sept.	1	1,027.77	.350	39.71	.013	133.53	.045	158.10	.054	58.73	.020	113.42	.039	1,531.26	14,666.62	2,936.70	28,213.20	.521	.520	13	226	173	17.0
Oct.	1	1,771.34	.373	52.84	.011	156.69	.033	39.40	.008	94.94	.020	292.98	.062	2,408.19	17,074.81	4,747.20	32,960.40	.507	.518	17	279	296	16.0
Nov.	1	1,453.18	.282	75.62	.015	205.99	.040	2.89		103.11	.020	162.72	.032	2,003.51	19,078.32	5,155.25	38,115.65	.369	.501	13	397	246	20.8
Dec.	1	1,316.24	.274	143.59	.030	143.24	.030	265.14	.055	96.05	.020	95.43	.020	2,059.69	21,138.01	4,802.60	42,918.25	.429	.493	11	437	236	20.3
Total		\$ 15,734.31	\$.367	\$ 462.98	\$.011	\$ 1,650.95	\$.043	\$ 570.20	\$.013	\$ 358.35	\$.020	\$ 1,661.22	\$.039	\$ 21,138.01		42,918.25		\$.493		143½	299	2,311	18.6

(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY SHAKING CONVEYOR LOADERS
NO. 1 MINE, RELIANCE, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period				
Jan.	9	5,612.28	.541	281.98	.027	606.22	.058	279.60	.027	207.63	.020	256.29	.025	7,244.00	7,244.00	10,381.60	10,381.60	.698	.698	186	56	678	15.3
Feb.	9	6,449.88	.525	188.22	.015	795.64	.065	186.65	.015	245.86	.020	454.13	.037	8,322.38	15,566.38	12,293.10	22,674.70	.677	.686	211	58	744	16.5
Mar.	9	5,352.71	.541	205.16	.021	746.52	.076	122.60	.012	197.79	.020	299.20	.030	6,925.98	22,492.36	9,689.25	32,563.95	.700	.691	178	56	636	15.5
Apr.	9	4,897.81	.540	141.02	.015	640.55	.071	96.68	.011	181.23	.020	618.90	.066	6,576.49	29,066.85	9,076.60	41,640.55	.725	.698	169	54	574	15.8
May	9	5,660.81	.543	103.82	.010	560.31	.055	124.40	.012	209.19	.020	520.12	.050	7,218.65	36,267.90	10,459.65	52,130.20	.690	.697	205	51	673	15.5
June	8	3,421.78	.576	55.11	.009	347.75	.059	36.21	.006	118.72	.020	243.86	.041	4,223.45	40,510.35	5,935.90	58,036.10	.711	.698	126	47	413	14.4
July	8	4,329.40	.435	105.47	.011	565.89	.057	140.81	.014	198.84	.020	293.68	.030	5,634.09	46,145.04	9,942.15	67,978.25	.567	.679	164	54	643	15.5
Aug.	8	4,104.05	.436	141.28	.015	478.03	.051	544.53	.056	168.25	.020	322.78	.034	5,778.92	51,923.96	9,412.40	77,390.65	.614	.671	179	53	611	15.4
Sept.	8	5,366.51	.415	176.53	.013	799.80	.062	382.89	.030	258.69	.020	497.79	.038	7,461.21	59,405.17	12,934.40	90,329.05	.578	.658	218	59	772	16.8
Oct.	9	7,810.20	.407	134.71	.007	947.29	.049	72.79	.004	384.16	.020	1,157.26	.060	10,506.41	69,911.58	19,207.90	109,532.95	.547	.638	300	64	1,036	17.6
Nov.	9	5,746.33	.415	146.59	.011	874.67	.063	52.05	.004	276.81	.020	433.92	.031	7,532.38	77,443.92	13,840.65	123,373.60	.544	.628	215	64	828	16.7
Dec.	9	5,681.59	.426	91.90	.007	799.41	.060	50.03	.004	266.55	.020	267.92	.020	7,157.40	84,601.36	13,327.55	136,701.15	.537	.619	226	59	838	15.9
Total		64,453.35	.472	1,772.79	.013	8,184.08	.060	2,091.24	.015	2,734.02	.020	5,365.86	.039	84,601.36		136,701.15		.619		2,397	57	8,503	16.1

Note: There are 9 shaking conveyors in this mine. Pit Car Loaders operated with shaking conveyors as follows: During January 5, February and March 3, and during April to December, inclusive, 4 loaders. Under "No. Mach. Operating" the pit car loaders are not reported as they operated as auxiliaries to the shaking conveyors and are not classed as a separate unit.

(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY PIT CAR LOADERS
NO. 1 MINE, RELIANCE, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Wash. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period	Month	Month	Month	Month
Jan.		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$			\$	\$				
Feb.	1	19.75	.340			2.93	.060			1.17	.020			23.85	23.85	58.20	58.20	.410	.410	1	58	3	16.1
Mar.	1	30.75	.696			6.76	.075			2.32	.020			91.63	115.68	116.05	174.25	.791	.664	5	23	10	11.6
Apr.	1	142.65	.770			9.98	.054			3.70	.020	6.25	.045	164.58	260.26	185.15	359.40	.889	.780	9	21	18	10.3
May	1	333.75	.675			21.75	.044			9.88	.020	21.98	.045	387.36	667.62	494.10	853.50	.784	.782	22	22	42	11.7
June	1	196.65	.710			15.82	.057			5.59	.020	10.16	.036	230.22	897.94	279.60	1,133.10	.923	.792	13	22	25	11.2
July	1	245.92	.581			28.75	.068			8.47	.020	12.07	.029	295.21	1,193.05	423.20	1,556.30	.698	.766	20	21	38	11.1
Aug.	1	231.94	.520			24.06	.054			8.91	.020	17.22	.039	262.13	1,475.18	445.70	2,002.00	.633	.737	19	24	36	12.4
Sept.	1	281.70	.530			32.07	.060			10.63	.020	16.90	.036	343.30	1,818.48	531.30	2,533.30	.646	.716	23	23	44	12.1
Oct.	1	167.36	.524			20.42	.064			6.39	.020	14.65	.046	206.82	2,027.30	319.40	2,652.70	.654	.710	13	25	26	12.5
Nov.	1	123.92	.501			13.60	.056			4.94	.020	6.03	.025	146.59	2,175.99	246.95	3,099.65	.602	.702	10	25	18	13.7
Dec.	1	81.44	.447			16.40	.101			3.64	.020	3.67	.020	107.15	2,283.04	182.10	3,281.75	.588	.696	7	26	11	16.5
Total		\$ 1,907.73	\$.581			\$ 196.74	\$.060			\$ 65.64	\$.020	\$ 112.93	\$.035	\$ 2,283.04		3,281.75		\$.696		142	23	271	12.1

Note: As of December 31, 1932, there are 2 pit car loaders in this mine. During the year only 1 loader operated as a separate unit, others operated as auxiliaries to the shaking conveyors.
(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY SCRAPER LOADERS
NO. 1 MINE, WINTON, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period				
Jan.	2	3,454.23	.793	57.87	.013	466.09	.107	91.08	.021	87.07	.020	438.91	.101	4,594.95	4,594.95	4,353.50	4,353.50	1.055	1.055	19	229	471	9.2
Feb.	2	4,303.51	.697			852.99	.138	75.55	.012	123.45	.020	595.40	.097	5,950.90	10,545.85	6,172.40	10,525.90	.964	1.002	23	268	563	11.0
Mar.	2	3,931.47	.442	130.81	.015	505.44	.066	93.94	.010	178.00	.020	616.25	.069	5,535.89	16,081.74	6,900.15	19,426.05	.622	.828	24	371	511	17.4
April	2	2,896.45	.388	66.11	.009	639.93	.086	22.97	.003	149.26	.020	695.88	.093	4,470.60	20,552.34	7,463.00	26,889.05	.599	.764	20	373	379	19.7
May	2	3,307.99	.405	63.34	.010	577.39	.071	41.12	.005	163.24	.020	671.77	.082	4,844.85	25,397.19	8,161.80	35,050.85	.593	.724	19	430	438	18.6
June	2	3,265.56	.422	143.68	.019	831.51	.108	40.07	.005	154.60	.020	463.72	.060	4,899.14	30,296.33	7,729.95	42,780.80	.634	.708	20	386	439	17.6
July	2	1,594.99	.260	8.34	.001	343.01	.060	15.35	.003	113.82	.020	618.90	.109	2,894.41	32,930.74	5,690.70	48,471.50	.473	.681	14	406	259	22.0
Aug.	2	2,261.81	.308	84.52	.012	989.14	.135	113.60	.015	146.68	.020	697.68	.095	4,293.43	37,284.17	7,334.00	55,805.50	.585	.668	20	367	382	19.2
Sept.	2	2,758.08	.333	125.77	.015	1,132.36	.136	155.71	.019	165.76	.020	579.72	.070	4,917.40	42,201.57	6,287.85	64,093.35	.593	.658	22	377	471	17.6
Oct.	2	3,602.03	.354	357.94	.036	1,548.16	.152	55.37	.006	203.47	.020	638.29	.082	6,605.26	48,806.83	10,173.55	74,266.90	.649	.657	30	339	656	15.5
Nov.	2	2,265.07	.293	18.63	.002	781.35	.101	6.75	.001	154.83	.020	622.72	.080	3,849.35	52,656.18	7,741.40	82,008.30	.497	.642	22	352	369	21.0
Dec.	2	2,219.29	.290	24.26	.003	877.47	.115	29.02	.004	152.80	.020	534.76	.070	3,837.60	56,493.78	7,639.85	89,646.15	.502	.630	20	382	364	21.0
Total		35,860.48	.400	1,100.97	.012	9,624.84	.108	740.53	.008	1,792.98	.020	7,373.98	.082	56,493.78		89,646.15		.630		253	354	5,302	16.9

(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY SHAKING CONVEYOR LOADERS
NO. 1 MINE, WINTON, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period		Month	Month	Month
Jan.	19	10,766.54	.713	54.96	.004	1,361.52	.090	129.52	.008	302.65	.020	1,546.63	.102	14,181.82	14,181.82	15,132.60	15,132.60	.937	.937	442	34	1,374	11.0
Feb.	19	12,298.18	.586			1,896.06	.090	75.36	.004	419.50	.020	2,029.78	.097	16,718.66	30,900.70	20,975.30	36,107.90	.797	.856	516	41	1,532	13.7
Mar.	19	10,394.58	.577	103.38	.006	2,124.30	.118	293.72	.016	360.26	.020	1,232.45	.068	14,508.69	45,409.39	18,013.10	54,121.00	.805	.839	423	43	1,290	14.0
Apr.	19	9,318.65	.583	46.43	.003	1,725.72	.108	335.97	.025	519.90	.020	1,476.75	.092	13,285.42	56,694.81	15,995.15	70,116.15	.831	.837	379	42	1,156	13.6
May	19	10,151.80	.603	38.07	.002	1,228.76	.073	125.13	.007	336.79	.020	1,343.55	.080	13,224.10	71,918.91	16,839.55	86,955.70	.785	.827	384	44	1,252	13.4
June	19	9,501.85	.660	7.01		1,421.40	.099	12.04	.001	287.68	.020	886.23	.062	12,116.41	84,035.32	14,394.05	101,349.75	.842	.829	390	37	1,189	12.1
July	19	5,548.28	.543			1,109.29	.108	21.97	.002	204.55	.020	1,100.26	.108	7,984.35	92,019.67	10,227.65	111,577.40	.761	.825	265	39	850	12.0
Aug.	20	7,665.18	.476	11.12	.001	1,523.46	.095	47.63	.003	321.81	.020	1,552.91	.096	11,122.11	103,141.78	16,090.35	127,667.75	.691	.808	361	42	1,163	13.6
Sept.	21	9,300.48	.488	13.90	.001	2,595.05	.136	128.52	.006	381.45	.020	1,333.35	.070	13,752.75	116,894.53	19,072.65	146,740.40	.721	.797	465	41	1,435	13.3
Oct.	21	11,827.87	.493	25.02	.001	2,439.56	.102	227.56	.010	479.65	.020	2,023.45	.084	17,023.11	133,917.64	23,982.40	170,722.80	.710	.784	624	38	1,835	13.0
Nov.	21	8,876.20	.475	94.51	.005	1,354.68	.073	99.98	.005	373.51	.020	1,481.64	.080	12,280.52	146,198.16	18,675.60	189,398.40	.658	.772	446	42	1,374	13.6
Dec.	21	7,950.00	.484	5.56		1,347.11	.082	3.12		328.75	.020	1,173.03	.071	10,807.57	157,005.73	16,437.65	205,836.05	.687	.763	416	40	1,235	13.3
Total		113,619.61	.552	399.96	.002	20,126.91	.098	1,560.52	.008	4,116.70	.020	17,182.03	.083	157,005.73		205,836.05		.763		5,131	40	15,705	13.1

Note: During 1932, two 10-H.P. Coscos were purchased and installed in this mine, 1 having started during August, 1932, and 1 during September, 1932.
(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY PIT CAR LOADERS
NO. 1 MINE, WINTON, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period	Month	Month	Month	Month
Jan.		\$		\$		\$		\$		\$		\$		\$				\$					
Feb.																							
Mar.																							
Apr.																							
May	1	171.56	.691			5.31	.021	5.28	.021	4.97	.020	20.36	.082	207.48	207.48	248.40	248.40	.835	.835	10	25	22	11.3
June	1	206.96	.942			19.37	.088			4.39	.020	13.64	.062	244.36	451.84	219.70	468.10	1.112	.965	13	17	27	8.1
July	1	69.20	1.508			7.13	.155			.92	.020			77.25	529.09	45.90	514.00	1.683	1.029	5	9	11	4.2
Aug.															529.09		514.00		1.029				
Sept.															529.09		514.00		1.029				
Oct.															529.09		514.00		1.029				
Nov.	1	114.80	.679			12.14	.072			3.38	.020	21.47	.127	151.79	680.88	169.10	683.10	.898	.997	9	19	19	8.9
Dec.															680.88		683.10		.997				
Total		\$ 562.52	\$.824			\$ 43.95	\$.064	\$ 5.28	\$.008	\$ 13.66	\$.020	\$ 55.47	\$.081	\$ 680.88		683.10		\$.997		37	18	79	8.6

Note: January 1, 1932, there were 4 pit car loaders at Winton, 1 Northern loader was scrapped during September; 2 Red Devils were transferred to Superior during October, 1 later sent to Rock Springs No. 8 Mine, but were not installed during 1932.

(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY 4 B. V. JOY LOADERS
NO. 1 MINE, WINTON, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period				
Jan.	2	\$ 555.49	\$.577	\$		\$ 63.14	\$.066	\$ 2.95	\$.003	\$ 19.26	\$.020	\$ 104.50	\$.106	\$ 745.34	\$ 745.34	963.10	963.10	\$.774	\$.774	41	23	67	14.4
Feb.	1	464.08	.542			70.73	.083			17.12	.020	81.19	.095	633.12	1,378.46	855.95	1,819.05	.740	.758	30	29	56	15.3
Mar.	1	253.61	.786	19.27	.059	18.07	.056			6.46	.020	18.67	.058	316.08	1,694.54	322.70	2,141.75	.979	.791	16	18	33	9.8
Apr.	1	32.74	1.139			2.19	.076	40.62	1.413	.58	.020			76.13	1,770.67	28.75	2,170.50	2.648	.816	2	14	4	7.2
May															1,770.67		2,170.50		.816				
June															1,770.67		2,170.50		.816				
July	1	26.40	.972			1.33	.049			.54	.020			28.27	1,798.94	27.15	2,197.65	1.041	.818	1	27	4	6.8
Aug.															1,798.94		2,197.65		.818				
Sept.	1	158.00	.668			12.54	.053			4.73	.020	19.32	.081	194.59	1,993.53	236.55	2,434.20	.822	.819	10	24	24	9.9
Oct.	1	200.04	.641			18.12	.058	17.10	.055	6.23	.020	26.90	.093	270.39	2,263.92	311.70	2,745.90	.867	.824	14	22	29	10.7
Nov.	1	244.97	.700			26.35	.075	.89	.003	7.00	.020	21.47	.061	300.68	2,564.60	349.90	3,095.80	.859	.828	17	21	35	10.0
Dec.	1	205.65	.764			15.46	.058			5.38	.020	17.25	.064	243.74	2,808.34	269.15	3,364.95	.906	.835	14	19	31	8.7
Total		\$ 2,140.98	\$.636	\$ 19.27	\$.006	\$ 227.93	\$.068	\$ 61.56	\$.018	\$ 67.30	\$.020	\$ 291.30	\$.067	\$ 2,808.34		3,364.95		\$.835		147	23	283	11.9

Note: January 1st, 1932, there were four of these loaders at Winton. They were not operated, being old, worn-out equipment. These loaders were all scrapped and taken out of the records during January, 1933.

(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY SHAKING CONVEYOR LOADERS
"B" MINE, SUPERIOR, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period	Month	Month	Month	Month
Jan.	13	\$ 8,288.24	\$.550	\$ 150.06	\$.010	\$ 153.21	\$.010	\$ 198.06	\$.013	\$ 242.55	\$.016	\$ 213.86	\$.015	\$ 9,245.98	\$ 9,245.98	15,069.00	15,069.00	\$.614	\$.614	245	62	999	15.1
Feb.	14	10,443.36	.533	278.08	.014	2,154.45	.110	74.48	.004	317.79	.016	220.76	.012	13,488.92	22,734.90	19,581.00	34,650.00	.689	.656	321	61	1,282	15.3
Mar.	14	9,316.56	.577	368.67	.024	1,226.64	.076	278.66	.017	230.25	.014	133.00	.008	11,573.78	34,308.68	16,165.55	50,815.55	.716	.675	273	59	1,168	13.8
Apr.	13	8,987.12	.570	312.22	.020	940.07	.060	282.72	.018	275.22	.017	291.99	.018	11,089.34	45,398.02	15,767.90	66,583.45	.703	.692	278	57	1,095	14.4
May	14	8,126.73	.546	163.86	.011	1,749.18	.117	43.25	.003	266.31	.018	160.07	.011	10,509.40	55,907.42	14,891.80	61,475.25	.706	.686	269	55	991	15.0
June	13	6,363.60	.504	96.08	.007	1,240.64	.098	13.41	.001	185.13	.015	102.41	.008	8,021.27	63,928.69	12,665.50	94,140.75	.633	.679	187	68	731	17.3
July	13	5,869.87	.460	103.72	.008	1,067.64	.084	10.15	.001	231.66	.018	138.22	.011	7,421.26	71,349.95	12,765.10	106,905.65	.582	.667	234	55	875	14.6
Aug.	13	7,391.80	.455	95.94	.006	1,468.59	.090	28.98	.002	279.18	.017	166.07	.012	9,450.56	80,600.51	16,231.60	123,137.45	.582	.656	282	58	1,110	14.6
Sept.	13	7,015.48	.433	107.52	.007	1,687.51	.116	69.96	.004	276.21	.017	205.73	.013	9,562.41	90,362.92	16,215.05	139,352.50	.590	.648	279	58	1,048	15.5
Oct.	12	9,292.79	.424	77.34	.004	2,373.48	.108	120.04	.005	371.25	.017	572.96	.026	12,807.86	103,170.78	21,941.90	161,294.40	.584	.640	375	59	1,405	15.6
Nov.	12	6,662.44	.418	88.90	.005	1,780.45	.112	151.75	.010	240.57	.015	433.44	.027	9,357.55	112,528.33	15,941.85	177,236.25	.587	.635	243	66	965	16.5
Dec.	13	7,269.08	.447	20.32	.001	1,477.78	.091	31.86	.002	282.15	.017	671.28	.041	9,752.47	122,280.80	16,269.45	193,505.70	.599	.632	285	57	1,084	15.0
Total		\$ 95,047.07	\$.491	\$1,862.71	\$.010	\$17,519.64	\$.091	\$1,303.32	\$.007	\$3,198.27	\$.016	\$ 3,329.79	\$.017	\$122,280.80		193,505.70		\$.632		3,271	59	12,753	15.2

Note: During July, 1932, 2 Havor & Coulson shaking conveyors were scrapped and taken out of service. 2-25 H.P. Coscos (new) were purchased and installed during July, 1932. During August 1-5 H.P. Rickhoff was transferred to "E" Mine. There are now 13 shaking conveyors in this mine. Pit Car loaders operated as follows: 2, Jan., Feb., June to Dec., inclusive; 3 March, April and May. Under No. Mach. Operating, these loaders are not included as they were operated as auxiliaries to shaking conveyors and not considered as separate units.

(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY SHAKING CONVEYOR LOADERS
"C" MINE, SUPERIOR, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period				
Jan.	11	\$ 7,930.10	\$.607	\$ 124.90	\$.010	\$ 1,800.88	\$.138	\$ 1.27		\$ 208.89	\$.016	\$ 138.51	\$.011	\$ 10,204.55	\$ 10,204.55	13,054.00	13,054.00	\$.782	\$.782	211	62	976	13.4
Feb.	11	9,747.90	.578	42.81	.003	2,239.98	.153	5.48		276.66	.016	80.26	.005	12,393.09	22,597.64	16,848.00	29,902.00	.735	.756	266	63	1,178	14.3
March	12	7,736.13	.618	81.72	.007	999.26	.080			236.25	.019	76.75	.006	9,130.11	31,727.75	12,514.10	42,416.10	.730	.748	223	56	973	12.9
Apr.	12	7,909.61	.603	14.02	.001	1,412.80	.108	20.84	.002	238.68	.018	73.97	.006	9,669.92	41,397.67	13,107.55	55,523.65	.738	.745	228	57	967	13.6
May	11	7,291.72	.640	61.81	.006	1,286.11	.113	7.00		242.91	.021	121.55	.011	9,011.10	50,408.77	11,400.75	66,924.40	.791	.753	229	50	923	12.4
June	11	4,938.92	.590			1,005.65	.120	.21		139.68	.017	10.40	.001	6,094.86	56,503.63	8,372.95	75,297.35	.728	.751	136	62	602	13.9
July	9	4,096.91	.503	11.52	.001	910.06	.112	3.59		142.47	.018	84.82	.010	5,249.37	61,753.00	8,144.90	83,442.25	.644	.740	141	58	627	13.0
Aug.	12	6,912.22	.471	41.12	.003	1,753.93	.120	65.35	.004	244.71	.017	34.39	.002	9,051.72	70,804.72	14,678.30	98,120.55	.617	.722	233	63	1,043	14.1
Sept.	12	6,750.79	.470	67.64	.005	1,478.64	.103	52.70	.004	266.22	.018	93.76	.006	8,709.95	79,514.67	14,374.30	112,494.85	.606	.707	242	59	1,034	13.9
Oct.	12	9,699.41	.486	36.52	.002	2,075.02	.104	51.13	.003	368.55	.018	191.13	.009	12,421.76	91,936.43	19,969.75	132,464.60	.622	.694	337	59	1,439	13.9
Nov.	12	7,282.28	.475	74.40	.005	1,766.53	.115	179.97	.012	247.14	.016	22.07	.001	9,572.39	101,506.82	15,346.85	147,811.45	.624	.687	234	66	1,105	13.9
Dec.	12	6,951.69	.516	108.22	.008	1,241.47	.092	119.96	.009	252.63	.019	19.72	.001	8,693.69	110,202.51	13,480.55	161,292.00	.645	.683	237	57	1,073	12.6
Total		\$ 87,247.68	\$.541	\$ 664.88	\$.004	\$ 17,970.33	\$.111	\$ 507.50	\$.003	\$ 2,864.79	\$.018	\$ 947.33	\$.006	\$ 110,202.51		161,292.00		\$.683		2,717	59	11,940	13.5

Note: There are 12 shaking conveyors in this mine. Pit car loaders operated with shaking conveyors as follows: 2 - Jan., May, June, July, Oct, Nov. & Dec.; 1 - Feb., and 3 - Mar., Apr., Aug. & Sept.
Pit car loaders are not reported in number of machines operating, as these loaders were operated as auxiliaries to shaking conveyors and are not considered as separate units.
(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY PIT CAR LOADERS
 "C" MINE, SUPERIOR, WYOMING
 Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period	Month	Month	Month	Month
Jan.		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	18.00	18.00	\$	\$				
Feb.																							
Mar.																							
Apr.																							
May																							
June																							
July																							
Aug.																							
Sept.																							
Oct.	1	64.00	.506			4.35	.035			1.80	.014			70.15	70.15	126.40	144.40	.555	.486	5	25	10	12.6
Nov.	1	233.90	.822			10.44	.037	.28		6.48	.023			251.10	321.25	284.60	429.00	.882	.749	18	16	36	7.9
Dec.	1	236.40	.666					10.10	.028	6.48	.018			252.96	574.23	355.05	764.05	.712	.732	18	20	36	9.9
Total		\$ 534.30	\$.681			\$ 14.79	\$.019	\$ 10.38	\$.013	\$ 14.76	\$.019			\$ 574.23		764.05		\$.732		41	19	82	9.6

Note: Pit car loaders, for the most part, operated with shaking conveyors during the year. 1 loader operated as a separate unit during Oct., Nov. & Dec. There are 3 pit car loaders in this mine.
 (x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY SHAKING CONVEYOR LOADERS
"E" MINE, SUPERIOR, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period				
Jan.	4	\$ 3,150.31	\$.607	\$ 74.87	\$.014	\$ 600.37	\$.116	\$ 143.68	\$.028	\$ 120.78	\$.023	\$ 23.43	\$.005	\$ 4,113.44	\$ 4,113.44	5,190.00	5,190.00	\$.793	\$.793	122	43	396	13.1
Feb.	4	3,639.08	.537	28.04	.004	360.13	.053	22.93	.004	144.54	.021	22.07	.004	4,216.79	8,330.23	6,773.00	11,963.00	.623	.696	146	46	435	15.6
Mar.	4	3,503.63	.587	7.01	.001	322.01	.054	7.54	.001	137.61	.023	9.15	.002	3,986.95	12,317.18	5,970.75	17,933.75	.668	.687	139	43	434	13.8
Apr.	4	3,803.17	.564	7.01	.001	275.46	.041	5.99	.001	135.63	.020	120.01	.018	4,347.27	16,664.45	6,742.15	24,675.90	.645	.675	137	49	467	14.4
May	4	3,162.16	.551	61.33	.011	257.32	.045	77.49	.013	119.79	.021	8.18	.001	3,686.87	20,351.32	5,743.85	30,419.75	.642	.669	121	47	389	14.8
June	4	2,471.75	.630	86.81	.022	202.90	.052	65.32	.017	99.00	.025	7.50	.002	2,933.28	23,284.60	3,922.60	34,342.35	.748	.678	100	39	325	12.1
July	8	3,085.08	.476			240.36	.037	2.64		127.71	.020	96.09	.015	3,551.88	26,836.48	6,483.30	40,825.65	.548	.657	129	50	482	13.4
Aug.	9	5,142.93	.492			922.97	.088	73.64	.007	240.57	.023			6,380.31	33,216.79	10,454.15	51,279.80	.610	.648	243	43	800	13.1
Sept.	9	4,638.33	.479	16.38	.002	720.92	.071	21.14	.002	218.79	.022	35.54	.003	5,851.10	39,067.89	10,097.25	61,377.05	.579	.637	221	46	767	13.2
Oct.	10	6,453.00	.451	20.08	.001	824.55	.058	130.81	.009	274.23	.019	200.45	.014	7,903.12	46,971.01	14,319.20	75,696.25	.552	.621	277	52	994	14.4
Nov.	9	4,273.50	.419	76.89	.008	459.76	.045	112.35	.011	176.22	.017	296.81	.029	5,325.53	52,366.54	10,201.25	65,897.50	.529	.610	178	57	676	15.1
Dec.	10	4,750.40	.411	54.96	.005	454.18	.039	5.80	.001	207.90	.018	258.44	.022	5,731.68	58,098.22	11,562.20	97,459.70	.496	.596	210	55	737	15.7
Total		\$ 48,273.34	\$.495	\$ 433.38	\$.004	\$ 5,641.53	\$.058	\$ 669.53	\$.007	\$ 2,002.77	\$.021	\$ 1,077.67	\$.011	\$ 58,098.22		97,459.70		\$.596		2,023	48	6,902	14.1

Note: 4 25-H.P. Coscos (new) were purchased and installed during July, 1932. 1 5-H.P. Hickhoff was transferred from "B" Mine and began producing coal in August, 1932. 1 25-H.P. Cosco (used equipment) was purchased from the Washington Union Coal Company and began operations in "E" Mine during October. There are now 10 shaking conveyors in this mine.

(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY PIT CAR LOADERS
"E" MINE, SUPERIOR, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 55 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period				
Jan.	3	\$ 1,308.34	\$.721	\$ 33.29	\$.019	\$ 76.48	\$.042	\$	\$	\$ 27.36	\$.015	\$	\$	\$ 1,445.47	\$ 1,445.47	1,815.00	1,815.00	\$.797	\$.797	76	24	164	11.1
Feb.	3	1,983.11	.725	14.02	.005	112.98	.041	7.74	.003	42.12	.015	17.54	.007	2,177.51	3,622.98	2,737.00	4,552.00	.796	.796	117	23	246	11.1
Mar.	3	1,853.75	.841	54.16	.025	106.48	.046	16.58	.008	33.48	.015			2,064.45	5,667.43	2,202.45	6,754.45	.937	.942	93	24	241	9.1
Apr.	3	2,140.25	1.095			106.44	.054			38.52	.020	26.94	.015	2,314.15	8,001.58	1,954.80	8,709.25	1.184	.919	107	18	268	7.3
May	3	1,646.68	.917	23.11	.013	111.76	.062	1.19	.001	29.16	.016	24.66	.014	1,836.58	9,838.16	1,795.40	10,504.65	1.023	.937	81	22	211	8.5
June	3	1,050.25	.846	25.16	.020	77.92	.063	22.25	.018	24.12	.019			1,199.70	11,037.86	1,241.70	11,746.35	.966	.940	67	19	135	9.2
July	3	810.00	.724	5.56	.005	38.87	.035	16.50	.016	19.80	.018			890.73	11,928.59	1,118.90	12,865.25	.796	.927	55	20	128	8.7
Aug.	3	664.00	.784	40.32	.048	44.32	.052	29.25	.034	19.44	.023			797.33	12,725.92	847.30	13,712.55	.941	.928	54	16	114	7.4
Sept.	3	992.80	.625			62.16	.039	9.33	.006	26.28	.017			1,090.57	13,816.49	1,588.40	15,300.95	.667	.903	73	22	155	10.2
Oct.	4	1,330.31	.602	7.26	.003	65.50	.030			36.36	.016			1,439.43	15,255.92	2,210.55	17,511.50	.651	.671	101	22	209	10.6
Nov.	4	1,933.90	.642	20.00	.007	130.72	.043	9.89	.003	46.08	.015	62.62	.021	2,203.21	17,459.13	3,012.25	20,523.75	.731	.651	128	24	304	9.9
Dec.	4	2,100.77	.570	43.40	.012	152.04	.041	7.31	.002	56.16	.015	41.69	.011	2,401.37	19,860.50	3,687.15	24,210.90	.651	.620	156	24	335	11.0
Total		\$ 17,814.16	\$.736	\$ 266.28	\$.011	\$ 1,085.67	\$.045	\$ 120.04	\$.005	\$ 398.88	\$.016	\$ 175.47	\$.007	\$ 19,860.50		24,210.90		\$.820		1,108	22	2,510	9.6

Note: 1 Red Devil pit car loader (used equipment) was purchased from the Washington Union Coal Company, and began operations in "E" Mine during October, 1932.
(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY SCRAPER LOADERS
NO. 4 MINE, HANNA, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period	Month	Month	Month	Month
Jan.		\$		\$		\$		\$		\$		\$		\$				\$					
Feb.			40.32												40.32	40.32				6			
Mar.			53.76												53.76	94.08				6			
Apr.			55.22												55.22	149.30				6			
May																149.30							
June																149.30							
July																149.30							
Aug.																149.30							
Sept.																149.30							
Oct.																149.30							
Nov.																149.30							
Dec.																149.30							
Total		\$	149.30											\$	149.30					22			

Note: Vulcan Scraper did not operate during the year -- no demand for the coal.
(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY SHAKING CONVEYOR LOADERS
NO. 4 MINE, HANNA, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period	Month	Month	Month	Month
Jan.		\$		\$		\$		\$		\$		\$		\$				\$					
Feb.																							
Mar.																							
Apr.																							
May																							
June	1	208.20	1.170	31.38	.176	14.95	.084	21.74	.122	2.58	.014			278.85	278.85	178.00	178.00	1.566	1.566	4	45	32 1/2	5.5
July	1	162.86	.648	44.16	.230	17.46	.091	.13	.001	2.45	.013			227.06	505.91	192.00	370.00	1.183	1.367	6	32	30 1/4	6.3
Aug.	1	371.78	.916	19.14	.047	60.91	.150	8.97	.022	5.20	.013			466.00	971.91	406.00	776.00	1.148	1.252	18	23	64 3/8	6.3
Sept.	1	440.86	.757	13.90	.024	56.00	.096	3.39	.006	6.11	.011	32.00	.055	552.26	1,524.17	582.00	1,358.00	.949	1.122	14	42	74 1/2	7.8
Oct.	2	574.24	.678	8.34	.010	104.19	.123	2.52	.003	7.78	.009	24.94	.029	722.01	2,246.18	847.10	2,205.10	.852	1.019	18	47	92 1/4	9.2
Nov.	2	300.34	.686			16.32	.037			3.94	.009	4.04	.009	324.64	2,570.62	438.00	2,643.10	.741	.973	8	55	47 1/2	9.2
Dec.	1	92.48	.758	5.56	.046	8.34	.068			1.13	.009			107.51	2,678.33	122.00	2,765.10	.881	.969	3	41	17	7.2
Total		\$ 2,150.76	\$.778	\$ 122.48	\$.044	\$ 278.17	\$.101	\$ 36.75	\$.013	\$ 29.19	\$.011	\$ 60.98	\$.022	\$ 2,678.33		2,765.10		\$.969		71	39	358 3/8	7.7

Note: 1 25-H.P. Eickhoff transferred during June, and 1 25-H.P. Eickhoff transferred during September, from No. 6 Mine.
(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY 5 S. U. JOY LOADERS
NO. 4 MINE, HANNA, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period				
Jan.	6	\$ 5,919.46	\$.239	\$ 983.12	\$.040	\$ 1,747.63	\$.071	\$ 986.73	\$.040	\$ 239.50	\$.009	\$ 267.76	\$.011	\$ 10,144.20	\$ 10,144.20	24,725.00	24,725.00	\$.410	\$.410	101 1/2	244	682 3/4	28.0
Feb.	6	5,169.91	.223	841.72	.036	1,445.56	.062	524.20	.023	217.56	.009	507.43	.022	8,706.38	18,650.58	23,209.00	47,934.00	.375	.393	100	232	765 1/2	30.3
Mar.	6	5,762.17	.260	860.88	.039	1,444.76	.065	279.87	.015	231.24	.010	212.40	.009	8,811.32	27,661.90	22,264.00	70,198.00	.396	.394	105 3/8	211	817	27.3
Apr.	6	4,656.45	.270	734.45	.043	1,018.82	.059	676.97	.039	182.29	.011	547.57	.032	7,816.55	35,478.45	17,218.00	87,416.00	.454	.406	83	207	640 1/2	26.9
May	6	5,808.64	.288	806.73	.040	1,493.57	.074	372.15	.018	253.33	.013	215.29	.011	8,949.71	44,428.16	20,153.30	107,569.30	.444	.413	109	185	814 1/4	24.7
June	6	5,646.62	.272	780.84	.037	1,278.34	.062	559.45	.027	287.91	.014	675.97	.032	9,209.13	53,637.29	20,742.30	126,311.60	.444	.418	106	196	782 1/4	26.5
July	6	2,342.60	.233	283.43	.028	804.86	.080	154.85	.016	123.27	.012	61.02	.006	3,770.03	57,407.32	10,041.05	138,352.65	.375	.415	55	183	410 3/4	24.4
Aug.	6	4,690.09	.201	645.10	.028	1,450.35	.062	483.72	.021	285.87	.012	320.71	.014	7,875.84	65,283.16	23,302.35	161,655.00	.338	.404	116	201	838 7/8	27.8
Sept.	6	4,291.98	.169	883.18	.039	1,333.19	.059	413.69	.018	227.83	.010	768.05	.034	7,917.92	73,201.08	22,678.70	184,333.70	.349	.397	100	227	823 1/8	27.5
Oct.	6	5,237.73	.198	910.19	.034	1,817.21	.069	961.74	.037	229.21	.009	806.52	.031	9,962.60	83,163.68	26,386.75	210,720.45	.378	.395	124	213	969 3/8	27.2
Nov.	6	6,148.51	.223	859.77	.031	2,072.65	.075	902.32	.033	237.80	.008	399.64	.014	10,620.89	93,784.57	27,626.85	238,347.30	.384	.393	139	199	1122 1/4	24.6
Dec.	6	4,541.48	.186	847.23	.035	1,565.59	.064	468.58	.019	215.93	.009	632.26	.025	8,271.07	102,055.64	24,415.15	262,762.45	.339	.388	105	233	858 1/8	28.5
Total		\$ 60,235.64	\$.229	\$ 9,416.64	\$.036	\$ 17,472.53	\$.066	\$ 6,784.27	\$.026	\$ 2,731.74	\$.010	\$ 5,414.82	\$.021	\$ 102,055.64		262,762.45		\$.386		1243 7/8	211	9724 3/4	27.0

Note: There are 7 Joy loaders installed in this mine, 6 machines operating regularly, one being used for a "spare" as repairs are necessary to the loaders.
(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

MINE COST OF COAL LOADED BY SHAKING CONVEYOR LOADERS
NO. 6 MINE, HANNA, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Amount	Per Ton	Month	Period	Month	Period	Month	Period	Month	Month	Month	Month
Jan.	1	\$ 94.04	\$1.621	\$ 69.62	\$1.201	\$ 14.33	\$.247	\$.16	\$.003	\$ 2.75	\$.047	\$ 6.52	\$.112	\$ 187.42	\$ 187.42	58.00	58.00	\$3.231	\$3.231	5/8	93	22 3/4	2.5
Feb.	2	585.30	.623	34.89	.037	89.66	.096	14.18	.015	8.64	.009	46.71	.050	779.38	966.80	939.00	997.00	.830	.970	15 5/8	69	79 5/8	11.8
Mar.	2	686.83	.615	133.91	.120	92.82	.063			11.60	.010	72.47	.065	997.63	1,964.43	1,117.00	2,114.00	.893	.929	17 1/2	64	106 5/8	10.5
Apr.	2	459.91	.703	34.89	.053	60.73	.093			7.04	.011	31.07	.048	593.64	2,558.07	654.00	2,768.00	.908	.924	11 3/8	57	65	10.1
May	2	1,110.53	.558	56.16	.028	163.95	.082			23.78	.012	26.73	.013	1,361.15	3,939.22	1,991.30	4,759.30	.693	.828	21 3/4	92	148 3/4	13.4
June	1	515.17	.597			51.70	.060	20.72	.024	12.05	.014	76.51	.089	676.15	4,615.37	862.30	5,621.60	.784	.821	5	172	67 1/2	12.8
July															4,615.37		5,621.60		.821				
Aug.															4,615.37		5,621.60		.821				
Sept.															4,615.37		5,621.60		.821				
Oct.															4,615.37		5,621.60		.821				
Nov.															4,615.37		5,621.60		.821				
Dec.															4,615.37		5,621.60		.821				
Total		\$ 3,451.78	\$.614	\$ 329.47	\$.059	\$ 473.19	\$.084	\$ 35.06	\$.006	\$ 65.86	\$.012	\$ 260.01	\$.046	\$ 4,615.37		5,621.60		\$.821		69 7/8	80	490 1/4	11.5

Note: 1 25-H.P. Eickhoff was transferred during June, 1932, to No. 4 Mine, and during September, 1932, 1 25-H.P. Eickhoff was transferred to No. 4 Mine. No shaking conveyors in No. 6 Mine December 31, 1932.

(x) Proportion of labor and material, "Maintenance and Repairs of Accessories."

MINE COST OF COAL LOADED BY 5 B. U. JOY LOADERS
NO. 6 MINE, HANNA, WYOMING
Year Ending December 31, 1932

Month	No. Mach. Operating	Labor Operation		Labor Maint.		Mat'l. Operation		Material Maint.		Power (est.)		(x) Accts. 53 & 120		Total Cost		Tons Mined		Total Cost Per Ton		Mach. Shifts	Average Mach. Shift Tonnage	Man Shifts	Average Man Shift Tonnage
		Amount	Ton	Amount	Ton	Amount	Ton	Amount	Ton	Amount	Ton	Amount	Ton	Month	Period	Month	Period	Month	Period				
Jan.	1	\$ 188.43	\$.470	\$ 7.01	\$.017	\$ 35.57	\$.089	\$ 2.75	\$.007	\$ 17.24	\$.043	\$ 36.97	\$.092	\$ 287.97	\$ 287.97	401.00	401.00	\$.718	\$.718	6 3/8	63	23 7/8	16.8
Feb.	1	204.77	.416	7.01	.014	38.45	.078			4.36	.009	24.49	.050	279.08	567.05	492.00	893.00	.567	.635	4 1/4	116	26 1/4	18.7
Mar.	1	371.79	.457			67.74	.083	74.91	.092	8.07	.010	72.47	.069	594.98	1,162.03	814.00	1,707.00	.731	.681	5 1/8	159	48 3/8	16.8
Apr.	1	338.35	.699			52.45	.109	1.25	.003	5.47	.011	31.08	.064	428.60	1,590.63	484.00	2,191.00	.886	.726	6.5/8	73	41 7/8	11.6
May		8.12				1.75								9.87	1,600.50		2,191.00		.730		1		
June	1	414.86	.531	7.01	.009	61.40	.078	.17		10.16	.013	76.51	.098	570.11	2,170.61	781.65	2,972.65	.729	.730	9	87	52 1/2	14.9
July	1	292.60	.379			65.36	.085	2.49	.003	9.23	.012	2.18	.003	371.86	2,542.47	770.95	3,743.60	.482	.679	8	96	45 1/2	16.9
Aug.	1	717.00	.487	21.96	.015	129.34	.086			17.17	.012	11.12	.007	896.59	3,439.06	1,472.25	5,215.85	.609	.659	19	77	117	12.6
Sept.	1	660.00	.484	11.12	.008	132.36	.097	22.09	.016	12.49	.009	42.77	.032	880.83	4,319.89	1,364.00	6,579.85	.646	.656	21	65	105	13.0
Oct.	1	810.00	.438	60.64	.033	181.27	.098	55.37	.030	14.51	.008	74.90	.040	1,196.69	5,516.58	1,650.90	8,430.75	.647	.654	25	74	136	13.6
Nov.	1	679.80	.449	35.95	.024	133.10	.088	20.44	.013	11.90	.008	44.54	.029	925.73	6,442.31	1,514.45	9,945.20	.611	.648	20	76	112 1/2	13.5
Dec.	1	364.00	.490	66.83	.090	56.72	.076	77.58	.105	7.08	.009	124.82	.168	697.03	7,139.34	743.20	10,688.40	.938	.668	11	68	69 1/4	10.7
Total		\$ 5,049.72	\$.472	\$ 217.53	\$.020	\$ 955.51	\$.090	\$ 257.05	\$.024	\$ 117.68	\$.011	\$ 541.85	\$.051	\$ 7,139.34		10,688.40		\$.668		135 3/8	79	779 1/8	13.7

Note: There is 1 Joy Loader installed in this mine.

(x) Proportion of labor and material, "Maintenance and Repairs of Accessories".

COST OF COAL LOADED MECHANICALLY (INCLUDING DEPRECIATION)
YEAR ENDING DECEMBER 31, 1932

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Type	Classification	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
No. 4 Mine Rock Springs														
Shaking Conveyor	Mine Expenditure	\$ 2,791.00	\$ 3,256.78	\$ 3,015.02	\$ 2,717.11	\$ 3,185.28	\$ 2,917.97	\$ 1,160.34	\$ 2,490.31	\$ 3,255.51	\$ 6,837.59	\$ 5,506.67	\$ 5,599.71	\$ 42,733.29
Loaders	Total Tons	4,501.00	5,411.00	4,660.00	4,393.00	5,359.90	4,254.55	2,006.75	4,208.05	5,411.90	11,974.50	10,593.25	10,360.35	73,134.25
5-Jan. to	Mine Cost per ton	.620	.602	.647	.619	.594	.686	.578	.592	.602	.571	.520	.540	
July, inc.	Cost per ton - Period	.620	.610	.622	.621	.615	.626	.623	.619	.617	.606	.592	.584	.584
6-August	Depreciation - Period	.058	.053	.054	.055	.054	.055	.060	.060	.064	.058	.056	.055	.055
9-Sept. to	Total Cost - Period	.678	.663	.676	.676	.669	.681	.683	.679	.681	.664	.648	.639	.639
Dec., inc.	Av. Mach. Shift Tonnage	43	44	41	41	46	42	36	41	38	39	42	44	42
	Av. Man Shift Tonnage	15.6	15.6	14.0	14.5	16.0	14.7	14.4	12.6	12.2	13.6	14.1	13.7	14.1
No. 8 Mine Rock Springs														
Scraper Loaders	Mine Expenditure	\$ 5,470.40	\$ 4,346.38	\$ 4,321.20	\$ 4,225.75	\$ 3,773.95	\$ 4,480.81	\$ 1,312.73	\$ 3,308.95	\$ 4,399.09	\$ 5,263.32	\$ 4,819.77	\$ 4,945.62	\$ 50,667.97
2-loaders	Total Tons	8,231.00	6,485.00	7,226.00	7,515.00	6,793.00	7,917.00	2,120.00	8,149.00	7,856.00	11,725.80	10,776.00	8,428.00	93,221.80
	Mine Cost per ton	.665	.670	.598	.562	.555	.566	.619	.406	.560	.449	.447	.587	
	Cost per ton - Period	.665	.667	.644	.623	.611	.603	.603	.574	.572	.553	.539	.543	.543
	Depreciation - Period	.020	.023	.023	.023	.023	.023	.026	.025	.025	.023	.022	.022	.022
	Total Cost - Period	.685	.690	.667	.646	.634	.626	.629	.599	.597	.576	.561	.565	.565
	Av. Mach. Shift Tonnage	257	249	278	313	309	317	177	340	342	345	359	324	307
	Av. Man Shift Tonnage	15.1	14.9	18.6	18.2	20.7	18.5	12.6	19.6	17.3	18.6	18.4	17.5	17.7
Shaking Conveyor Loaders														
13-Jan. to Apr.,	Mine Expenditure	\$11,913.84	\$ 9,650.61	\$ 9,937.92	\$ 9,912.87	\$ 8,665.06	\$ 8,256.45	\$ 3,049.27	\$ 8,017.88	\$ 7,992.44	\$ 9,852.56	\$ 8,764.16	\$ 8,219.94	\$104,233.00
inc., June,	Total Tons	16,383.00	14,016.00	15,019.00	13,824.00	10,801.00	10,910.00	4,101.00	11,610.00	12,140.00	17,326.70	15,963.80	13,386.80	155,481.30
July, Sept.,	Mine Cost per ton	.727	.688	.662	.717	.802	.757	.744	.691	.658	.569	.549	.614	
and Oct.	Cost per ton - Period	.727	.710	.693	.699	.715	.721	.722	.718	.711	.692	.676	.670	.670
14-May	Depreciation - Period	.019	.020	.021	.021	.022	.023	.025	.025	.025	.023	.022	.022	.022
12-Aug. & Dec.	Total Cost - Period	.746	.730	.714	.720	.737	.744	.747	.743	.733	.715	.698	.692	.692
11-Nov.	Av. Mach. Shift Tonnage	44	44	47	47	41	35	32	44	41	40	43	43	42
1-Pit Car Ldr.	Av. Man Shift Tonnage	16.0	15.5	15.7	14.7	14.3	13.8	11.0	12.1	12.7	14.2	15.6	15.1	14.4
Jan. to July														
Inc.														
Pit Car Loaders (Contract Basis 61¢ per ton)														
15-Jan., Feb. &	Mine Expenditure	\$ 4,169.28	\$ 3,984.71	\$ 4,290.62	\$ 3,881.80	\$ 3,974.72	\$ 4,432.05	\$ 1,382.24	\$ 3,230.45	\$ 3,445.03	\$ 4,287.63	\$ 3,881.86	\$ 3,232.07	\$ 44,192.46
Oct.	Total Tons	5,995.00	5,574.00	6,033.00	5,528.00	5,597.60	6,110.65	2,396.55	5,748.90	5,938.60	7,653.15	6,717.55	5,138.15	68,431.15
16-Mar. to	Mine Cost per ton	.695	.715	.711	.702	.710	.725	.577	.562	.580	.560	.578	.629	
Sept., Inc.	Cost per ton - Period	.695	.705	.707	.706	.707	.710	.701	.683	.670	.655	.647	.646	.646
Nov. & Dec.	Depreciation - Period	.033	.034	.034	.034	.034	.034	.035	.033	.032	.030	.029	.029	.029
	Total Cost - Period	.728	.739	.741	.740	.741	.744	.736	.716	.702	.685	.676	.675	.675
	Av. Mach. Shift Tonnage	27	29	30	29	32	32	30	26	30	29	28	21	28
	Av. Man Shift Tonnage	14.7	15.5	15.5	14.8	16.0	16.2	13.1	14.6	15.4	14.3	14.4	14.0	14.9
Reliance														
Scraper Loaders	Mine Expenditure	\$ 1,975.89	\$ 2,082.69	\$ 1,713.14	\$ 1,519.30	\$ 1,899.48	\$ 1,407.11	\$ 1,300.83	\$ 1,236.92	\$ 1,531.26	\$ 2,408.19	\$ 2,003.51	\$ 2,059.69	\$ 21,138.01
1-loader	Total Tons	3,466.10	4,031.10	3,205.70	2,885.55	3,769.00	2,027.90	3,134.00	2,757.15	2,936.70	4,747.20	5,155.25	4,802.60	42,918.25
	Mine Cost per ton	.570	.517	.534	.526	.532	.694	.415	.448	.521	.507	.389	.429	
	Cost per ton - Period	.570	.541	.539	.537	.529	.547	.528	.520	.520	.518	.501	.493	.493
	Depreciation - Period	.015	.014	.015	.015	.015	.016	.016	.016	.016	.016	.015	.014	.014
	Total Cost - Period	.585	.555	.554	.552	.544	.563	.544	.536	.536	.534	.516	.507	.507
	Av. Mach. Shift Tonnage	248	288	291	289	314	290	285	263	226	279	397	437	299
	Av. Man Shift Tonnage	17.4	20.4	18.0	20.8	20.2	15.7	19.0	16.8	17.0	16.0	20.8	20.3	18.6

COST OF COAL LOADED MECHANICALLY (INCLUDING DEPRECIATION)
YEAR ENDING DECEMBER 31, 1932

Type	Classification	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Reliance														
Shaking Conveyor	Mine Expenditure	\$ 7,244.00	\$ 8,322.38	\$ 6,925.98	\$ 6,576.49	\$ 7,218.65	\$ 4,223.45	\$ 5,634.09	\$ 5,778.92	\$ 7,481.21	\$ 10,506.41	\$ 7,532.38	\$ 7,157.40	\$ 84,601.36
Loaders	Total Tons	10,381.60	12,293.10	9,889.25	9,076.60	10,459.65	5,935.90	9,942.15	9,412.40	12,934.40	19,207.90	13,840.65	13,327.55	136,701.15
9-Jan. to May, inc. Oct., Nov. & Dec.	Mine Cost per ton	.698	.677	.700	.725	.690	.711	.567	.614	.578	.547	.544	.537	
8-June to Sept., inc.	Cost per ton - Period	.698	.686	.691	.698	.697	.698	.679	.671	.658	.638	.628	.619	.619
Pit Car Loaders	Depreciation - Period	.062	.057	.059	.062	.061	.066	.064	.064	.060	.055	.053	.052	.052
5-Jan.	Total Cost - Period	.760	.743	.750	.760	.758	.764	.743	.735	.718	.693	.681	.671	.671
3-Feb. & Mar.	Av. Mach. Shift Tonnage	56	58	56	54	51	47	54	53	59	64	64	59	57
4-Apr. to Dec., inc.	Av. Man Shift Tonnage	15.3	16.5	15.5	15.8	15.5	14.4	15.5	15.4	16.8	17.6	16.7	15.9	16.1
Pit Car Loaders	Mine Expenditure		\$ 23.85	\$ 91.83	\$ 164.58	\$ 307.36	\$ 230.22	\$ 295.21	\$ 282.13	\$ 343.30	\$ 208.82	\$ 148.59	\$ 107.15	\$ 2,283.04
1-loader	Total Tons		58.20	116.05	185.15	494.10	279.60	423.20	445.70	531.30	319.40	246.95	182.10	3,281.75
	Mine Cost per ton		.410	.791	.889	.784	.823	.698	.633	.646	.654	.602	.588	
	Cost per ton - Period		.410	.664	.780	.782	.792	.766	.737	.718	.710	.702	.696	.696
	Depreciation - Period		.197	.131	.096	.054	.051	.038	.031	.025	.023	.022	.026	.026
	Total Cost - Period		.607	.795	.876	.836	.843	.804	.768	.743	.733	.724	.722	.722
	Av. Mach. Shift Tonnage		58	23	21	22	22	21	24	23	25	25	26	23
	Av. Man Shift Tonnage		16.1	11.6	10.3	11.7	11.2	11.1	12.4	12.1	12.3	13.7	16.5	12.1
Winton														
Scraper Loaders	Mine Expenditure	\$ 4,594.95	\$ 5,950.90	\$ 5,535.89	\$ 4,470.60	\$ 4,844.85	\$ 4,899.14	\$ 2,694.41	\$ 4,293.43	\$ 4,917.40	\$ 6,605.26	\$ 3,849.35	\$ 3,837.60	\$ 56,493.78
2-loaders	Total Tons	4,353.50	6,172.40	8,900.15	7,463.00	8,161.80	7,729.95	5,690.70	7,334.00	8,287.05	10,173.55	7,741.40	7,639.85	89,648.15
	Mine Cost per ton	1.055	.964	.622	.599	.593	.634	.473	.585	.593	.649	.497	.502	
	Cost per ton - Period	1.055	1.002	.828	.764	.724	.708	.681	.668	.658	.657	.642	.630	.630
	Depreciation - Period	.024	.020	.016	.016	.015	.015	.015	.015	.015	.014	.014	.014	.014
	Total Cost - Period	1.079	1.022	.844	.780	.739	.723	.696	.683	.673	.671	.656	.644	.644
	Av. Mach. Shift Tonnage	229	268	371	373	430	386	406	367	377	339	352	382	354
	Av. Man Shift Tonnage	9.2	11.0	17.4	19.7	18.6	17.6	22.0	19.2	17.6	15.5	21.0	21.0	16.9
Shaking Conveyor	Mine Expenditure	\$ 14,181.82	\$ 16,718.88	\$ 14,508.69	\$ 13,285.42	\$ 13,224.10	\$ 12,116.41	\$ 7,984.35	\$ 11,122.11	\$ 13,752.75	\$ 17,023.11	\$ 12,280.52	\$ 10,807.57	\$ 157,005.73
Loaders	Total Tons	15,132.60	20,975.30	18,013.10	15,995.15	16,839.55	14,394.05	10,227.65	16,090.35	19,072.65	23,982.40	18,675.60	16,437.65	205,836.05
19-Jan. to July, inc.	Mine Cost per ton	.937	.797	.805	.831	.785	.842	.781	.691	.721	.710	.658	.657	
20-Aug.	Cost per ton - Period	.937	.856	.839	.837	.827	.829	.825	.808	.797	.784	.772	.763	.763
21-Sept. to Dec., inc.	Depreciation - Period	.038	.032	.032	.033	.033	.034	.035	.034	.033	.032	.031	.031	.031
	Total Cost - Period	.975	.888	.871	.870	.860	.863	.860	.842	.830	.816	.803	.794	.794
	Av. Mach. Shift Tonnage	34	41	43	42	44	37	39	42	41	38	42	40	40
	Av. Man Shift Tonnage	11.0	13.7	14.0	13.8	13.4	12.1	12.0	13.6	13.3	13.0	13.6	13.3	13.1
Pit Car Loaders	Mine Expenditure					\$ 207.48	\$ 244.36	\$ 77.25				\$ 151.79		\$ 680.88
1-loader	Total Tons					248.40	219.70	45.90				169.10		683.10
	Mine Cost per ton					.835	1.112	1.683				.898		
	Cost per ton - Period					.835	.965	1.029	1.029	1.027	1.027	.997	.997	.997
	Depreciation - Period					1.261	.803	.838	.945	1.051	1.158	.906	.937	.937
	Total Cost - Period					2.096	1.768	1.867	1.974	2.080	2.187	1.903	1.934	1.934
	Av. Mach. Shift Tonnage					25	17	9				19		18
	Av. Man Shift Tonnage					11.3	8.1	4.2				8.9		8.6

COST OF COAL LOADED MECHANICALLY (INCLUDING DEPRECIATION)
YEAR ENDING DECEMBER 31, 1932

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Type	Classification	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Winton														
4 B.U. Joy Loaders	Mine Expenditure	\$ 745.34	\$ 633.12	\$ 316.08	\$ 76.13									
2-Jan.	Total Tons	963.10	855.95	322.70	28.75			28.27		194.59	270.39	300.68	243.74	2,808.34
1-Feb., Mar., Apr.	Mine Cost per ton	.774	.740	.979	2.648			27.15		236.55	311.70	349.90	269.15	3,364.95
July, Sept. to Dec., Inc.	Cost per ton - Period	.774	.758	.791	.816	.816	.816	1.041	.818	.822	.867	.859	.906	
	Depreciation - Period		(No depreciation chargeable account machines having been retired from Capital Investment previous to 1930)					.818	.818	.819	.824	.828	.835	.835
	Total Cost - Period	.774	.758	.791	.816	.816	.816	.818	.818	.819	.824	.828	.835	.835
	Av. Mach. Shift Tonnage	23	29	18	14			.818	.818	.819	.824	.828	.835	.835
	Av. Man Shift Tonnage	14.4	15.3	9.8	7.2			27		24	22	21	19	23
								6.8		9.9	10.7	10.0	8.7	11.9
"B" Mine Superior														
Shaking Conveyor Loaders	Mine Expenditure	\$ 9,245.98	\$ 13,488.92	\$ 11,573.78	\$ 11,089.34	\$ 10,509.40	\$ 8,021.27	\$ 7,421.26	\$ 9,450.56	\$ 9,562.41	\$ 12,807.86	\$ 9,357.55	\$ 9,752.47	\$ 122,280.80
13-Jan., Apr., June to Sept. inc., & Dec.	Total Tons	15,069.00	19,581.00	16,165.55	15,767.90	14,891.80	12,665.50	12,765.10	16,231.60	16,215.05	21,941.90	15,941.85	16,269.45	193,505.70
14-Feb., Mar. & May.	Mine Cost per ton	.614	.689	.716	.703	.706	.633	.582	.582	.590	.584	.587	.599	
12-Oct. & Nov.	Cost per ton - Period	.614	.656	.675	.682	.686	.679	.667	.656	.648	.640	.635	.632	.632
Pit Car Loaders	Depreciation - Period	.026	.023	.023	.024	.025	.026	.026	.026	.027	.026	.026	.027	.027
2-Jan., Feb., June to Dec., inc.	Total Cost - Period	.640	.679	.698	.706	.711	.705	.693	.682	.675	.666	.661	.659	.659
3-Mar. Apr. & May	Av. Mach. Shift Tonnage	62	61	59	57	55	68	55	58	58	59	66	57	59
	Av. Man Shift Tonnage	15.1	15.3	13.8	14.4	15.0	17.3	14.6	14.6	15.5	15.6	16.5	15.0	15.2
"C" Mine Superior														
Shaking Conveyor Loaders.	Mine Expenditure	\$ 10,204.55	\$ 12,393.09	\$ 9,130.11	\$ 9,669.92	\$ 9,011.10	\$ 6,094.86	\$ 5,249.37	\$ 9,051.72	\$ 8,709.95	\$ 12,421.76	\$ 9,572.39	\$ 8,693.69	\$ 110,202.51
11-Jan., Feb. May & June	Total Tons	13,054.00	16,848.00	12,514.10	13,107.55	11,400.75	8,372.95	8,144.90	14,678.30	14,374.30	19,969.75	15,346.85	13,480.55	161,292.00
12-Mar. Apr. Aug. to Dec. inc.	Mine Cost per ton	.782	.735	.730	.738	.791	.728	.644	.617	.606	.622	.624	.645	
9-July	Cost per ton - Period	.782	.756	.748	.745	.753	.751	.740	.722	.707	.694	.687	.683	.683
Pit Car Loaders	Depreciation - Period	.025	.022	.023	.024	.025	.026	.028	.027	.026	.025	.024	.024	.024
2-Jan. May, June July, Oct. Nov. & Dec.	Total Cost - Period	.807	.778	.771	.769	.778	.777	.768	.749	.733	.719	.711	.707	.707
1-Feb.	Av. Mach. Shift Tonnage	62	63	56	57	50	62	58	63	59	59	66	57	59
3-Mar. Apr. Aug. & Sept.	Av. Man Shift Tonnage	13.4	14.3	12.9	13.6	12.4	13.9	13.0	14.1	13.9	13.9	13.9	12.6	13.5
Pit Car Loaders														
1-loader	Mine Expenditure										70.15	251.10	252.98	574.23
	Total Tons	18.00									126.40	284.60	355.05	784.05
	Mine Cost per ton										.555	.882	.712	
	Cost per ton - Period										.486	.749	.732	.732
	Depreciation - Period										.119	.080	.066	.066
	Total Cost - Period										.605	.829	.798	.798
	Av. Mach. Shift Tonnage										25	16	20	19
	Av. Man Shift Tonnage										12.6	7.9	9.9	9.6

COST OF COAL LOADED MECHANICALLY (INCLUDING DEPRECIATION)
YEAR ENDING DECEMBER 31, 1932

Type	Classification	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
No. 6 Mine Hanna														
Shaking Conveyor	Mine Expenditure	\$ 187.42	\$ 779.38	\$ 997.63	\$ 593.64	\$ 1,381.15	\$ 676.15							
Loaders	Total Tons	58.00	939.00	1,117.00	654.00	1,991.30	862.30							\$ 4,615.37
1-Jan. & June	Mine Cost per ton	\$ 3.231	\$.830	\$.893	\$.908	\$.693	\$.784							5,621.60
2-Feb. to	Cost per ton - Period	\$ 3.231	\$.970	\$.929	\$.924	\$.828	\$.821	\$.821	\$.821	\$.821	\$.821	\$.821	\$.821	\$.821
May, inc.	Depreciation - Period	\$.777	\$.090	\$.064	\$.065	\$.047	\$.048	\$.053	\$.057	\$.061	\$.062	\$.062	\$.062	\$.062
	Total Cost - Period	\$ 4.008	\$ 1.060	\$.993	\$.989	\$.875	\$.869	\$.874	\$.878	\$.882	\$.883	\$.883	\$.883	\$.883
	Av. Mach. Shift Tonnage	93	69	64	57	92	172							
	Av. Man Shift Tonnage	2.5	11.8	10.5	10.1	13.4	12.8							80
														11.5
5 B.U. Joy	Mine Expenditure	\$ 287.97	\$ 279.08	\$ 594.98	\$ 428.60	\$ 9.87	\$ 570.11	\$ 371.86	\$ 896.59	\$ 880.83	\$ 1,196.69	\$ 925.73	\$ 697.03	\$ 7,139.34
Loaders	Total Tons	401.00	492.00	814.00	484.00		781.65	770.95	1,472.25	1,364.00	1,850.90	1,514.45	743.20	10,688.40
1-loader	Mine Cost per ton	\$.718	\$.567	\$.731	\$.886		\$.729	\$.482	\$.609	\$.646	\$.647	\$.611	\$.938	
	Cost per ton - Period	\$.718	\$.635	\$.681	\$.726	\$.730	\$.730	\$.679	\$.659	\$.656	\$.654	\$.648	\$.668	\$.668
	Depreciation - Period	\$.439	\$.394	\$.309	\$.321	\$.402	\$.355	\$.329	\$.270	\$.241	\$.209	\$.195	\$.198	\$.198
	Total Cost - Period	\$ 1.157	\$ 1.029	\$.990	\$ 1.047	\$ 1.132	\$ 1.085	\$ 1.008	\$.929	\$.897	\$.863	\$.843	\$.866	\$.866
	Av. Mach. Shift Tonnage	63	116	159	73		87	96	77	65	74	76	68	79
	Av. Man Shift Tonnage	16.8	18.7	16.8	11.6		14.9	16.9	12.6	13.0	13.6	13.5	10.7	13.7

SUMMARY OF COST OF GOAL LOADED MECHANICALLY (INCLUDING DEPRECIATION)
IN ROCK SPRINGS, HILLTANE, WINTON, SUPERIOR AND HANNA MINES,
YEAR ENDING DECEMBER 31, 1932

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Location	Classification	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
All Loaders No. 4 Mine Rock Springs	Mine Expenditure	\$ 2,791.00	\$ 3,256.78	\$ 3,015.02	\$ 2,717.11	\$ 3,185.28	\$ 2,917.97	\$ 1,160.34	\$ 2,490.31	\$ 3,255.51	\$ 6,837.59	\$ 5,506.67	\$ 5,599.71	\$ 42,733.29
	Total Tons	4,501.00	5,411.00	4,660.00	4,393.00	5,359.90	4,254.55	2,006.75	4,208.05	5,411.90	11,974.50	10,593.25	10,360.35	73,134.25
	Mine Cost per ton	.620	.602	.647	.619	.594	.686	.578	.592	.602	.571	.520	.540	
	Cost per ton - Period	.620	.610	.622	.621	.615	.626	.623	.619	.617	.606	.592	.584	.584
	Depreciation - Period	.058	.053	.054	.055	.054	.055	.060	.060	.064	.058	.056	.055	.055
	Total Cost - Period	.678	.663	.676	.676	.669	.681	.683	.679	.681	.664	.648	.639	.639
	Av. Mach. Shift Tonnage	43	44	41	41	46	42	36	41	38	39	42	44	42
	Av. Man Shift Tonnage	15.6	15.6	14.0	14.5	16.0	14.7	14.4	12.6	12.2	13.6	14.1	13.7	14.1
All Loaders No. 8 Mine Rock Springs	Mine Expenditure	\$21,553.52	\$17,981.70	\$18,549.74	\$18,020.42	\$16,413.73	\$17,169.31	\$5,744.24	\$14,557.28	\$15,836.56	\$19,403.51	\$17,465.79	\$16,397.63	\$199,093.43
	Total Tons	30,609.00	26,075.00	28,278.00	26,867.00	23,191.60	24,937.65	8,617.55	25,507.90	25,934.60	36,705.65	33,457.35	26,952.95	317,134.25
	Mine Cost per ton	.704	.689	.656	.671	.707	.688	.666	.571	.611	.529	.522	.608	
	Cost per ton - Period	.704	.697	.684	.681	.685	.686	.685	.670	.663	.644	.629	.628	.628
	Depreciation - Period	.022	.024	.024	.024	.025	.025	.027	.027	.026	.024	.024	.023	.023
	Total Cost - Period	.726	.721	.708	.705	.710	.711	.712	.697	.689	.668	.653	.651	.651
	Av. Mach. Shift Tonnage	49	48	52	53	50	47	39	50	50	50	53	46	49
	Av. Man Shift Tonnage	15.5	15.4	16.3	15.5	16.1	15.6	11.9	14.4	14.4	15.4	16.1	15.5	15.4
All Loaders Rock Springs	Mine Expenditure	\$24,344.52	\$21,238.48	\$21,564.76	\$20,737.53	\$19,599.01	\$20,087.28	\$6,904.58	\$17,047.59	\$19,092.07	\$26,241.10	\$22,972.46	\$21,997.34	\$241,826.72
	Total Tons	35,110.00	31,486.00	32,938.00	31,260.00	28,551.50	29,192.20	10,624.30	29,715.95	31,346.50	48,680.15	44,050.60	37,313.30	390,268.50
	Mine Cost per ton	.693	.674	.655	.663	.686	.688	.650	.573	.609	.539	.521	.589	
	Cost per ton - Period	.693	.685	.675	.672	.675	.677	.675	.662	.656	.637	.623	.620	.620
	Depreciation - Period	.027	.028	.028	.029	.029	.030	.033	.032	.032	.030	.029	.029	.029
	Total Cost - Period	.720	.713	.703	.701	.704	.707	.708	.694	.688	.667	.652	.649	.649
	Av. Mach. Shift Tonnage	48	47	50	51	49	46	38	48	47	47	50	46	48
	Av. Man Shift Tonnage	15.5	14.8	16.0	15.4	16.1	15.5	12.3	14.1	14.0	14.9	15.6	15.0	15.1
All Loaders Reliance	Mine Expenditure	\$ 9,219.89	\$10,428.92	\$ 8,730.95	\$ 8,260.37	\$ 9,505.49	\$ 5,860.78	\$ 7,230.13	\$ 7,297.97	\$ 9,355.77	\$13,123.42	\$ 9,684.48	\$ 9,324.24	\$108,022.41
	Total Tons	13,847.70	16,382.40	13,211.00	12,147.30	14,722.75	8,243.40	13,499.35	12,615.25	16,402.40	24,274.50	19,242.85	18,312.25	182,901.15
	Mine Cost per ton	.666	.637	.661	.680	.646	.711	.536	.573	.570	.541	.503	.509	
	Cost per ton - Period	.666	.650	.653	.659	.656	.662	.644	.636	.627	.613	.600	.591	.591
	Depreciation - Period	.050	.046	.049	.050	.050	.054	.052	.051	.049	.045	.043	.042	.042
	Total Cost - Period	.716	.696	.702	.709	.706	.716	.696	.687	.676	.658	.643	.633	.633
	Av. Mach. Shift Tonnage	69	72	68	65	62	56	63	61	65	74	81	75	68
	Av. Man Shift Tonnage	15.8	17.3	16.0	16.6	16.3	14.5	15.9	15.6	16.6	17.2	17.6	16.9	16.5
All Loaders Winton	Mine Expenditure	\$19,522.11	\$23,302.90	\$20,360.66	\$17,832.15	\$18,276.43	\$17,259.91	\$10,784.28	\$15,415.54	\$18,864.74	\$23,898.76	\$16,582.34	\$14,888.91	\$216,988.73
	Total Tons	20,449.20	28,003.65	27,235.95	23,486.90	25,249.75	22,343.70	15,991.40	23,424.35	27,597.05	34,467.65	26,936.00	24,346.65	299,532.25
	Mine Cost per ton	.955	.832	.748	.759	.724	.772	.674	.658	.684	.693	.616	.612	.724
	Cost per ton - Period	.955	.882	.835	.817	.798	.794	.782	.767	.756	.747	.734	.724	.724
	Depreciation - Period	.036	.031	.029	.030	.030	.030	.031	.030	.030	.028	.028	.028	.028
	Total Cost - Period	.991	.913	.864	.847	.828	.824	.813	.797	.786	.775	.762	.752	.752
	Av. Mach. Shift Tonnage	41	49	59	59	61	53	56	58	56	52	55	54	54
	Av. Man Shift Tonnage	10.7	13.0	14.8	15.3	14.7	13.5	14.2	15.0	14.3	13.7	15.0	14.9	14.0
All Loaders "B" Mine Superior	Mine Expenditure	\$ 9,245.98	\$13,488.92	\$11,573.78	\$11,089.34	\$10,509.40	\$ 8,021.27	\$ 7,421.26	\$ 9,450.56	\$ 9,562.41	\$12,807.86	\$ 9,357.55	\$ 9,752.47	\$122,280.80
	Total Tons	15,069.00	19,581.00	16,165.55	15,767.90	14,891.80	12,665.50	12,765.10	16,231.60	16,215.05	21,941.90	15,941.85	16,269.45	193,505.70
	Mine Cost per ton	.614	.689	.716	.703	.706	.633	.582	.582	.590	.584	.587	.599	.632
	Cost per ton - Period	.614	.656	.675	.682	.686	.679	.667	.656	.648	.640	.635	.632	.632
	Depreciation - Period	.030	.026	.027	.027	.028	.029	.030	.029	.030	.029	.029	.030	.030
	Total Cost - Period	.644	.682	.702	.709	.714	.708	.697	.685	.678	.669	.664	.662	.662
	Av. Mach. Shift Tonnage	62	61	59	57	55	68	55	58	58	59	66	57	59
	Av. Man Shift Tonnage	15.1	15.3	13.8	14.4	15.0	17.3	14.6	14.6	15.5	15.6	16.5	15.0	15.2
All Loaders "C" Mine Superior	Mine Expenditure	\$10,204.55	\$12,393.09	\$ 9,130.11	\$ 9,669.92	\$ 9,011.10	\$ 6,094.86	\$ 5,249.37	\$ 9,051.72	\$ 8,709.95	\$12,491.91	\$ 9,823.49	\$ 8,946.67	\$110,776.74
	Total Tons	13,072.00	16,848.00	12,514.10	13,107.55	11,400.75	8,372.95	8,144.90	14,678.30	14,374.30	20,096.15	15,631.45	13,835.60	162,076.05
	Mine Cost per ton	.781	.735	.730	.738	.791	.728	.644	.617	.606	.622	.628	.647	.684
	Cost per ton - Period	.781	.755	.748	.745	.753	.750	.740	.721	.707	.694	.687	.684	.684
	Depreciation - Period	.025	.022	.023	.024	.025	.026	.028	.027	.027	.025	.024	.024	.024
	Total Cost - Period	.806	.777	.771	.769	.778	.776	.768	.748	.733	.719	.711	.708	.708
	Av. Mach. Shift Tonnage	62	63	56	57	50	62	58	63	59	59	62	54	59
	Av. Man Shift Tonnage	13.4	14.3	12.9	13.6	12.4	13.9	13.0	14.1	13.9	13.9	13.7	12.5	13.5

All Loaders "B" Mine Superior	Mine Expenditure Total Tons Mine Cost per ton Cost per ton - Period Depreciation - Period Total Cost - Period Av. Mach. Shift Tonnage Av. Man Shift Tonnage	9,245.98 15,069.00 .614 .614 .030 .644 62 15.1	13,488.92 19,581.00 .689 .656 .026 .682 61 15.3	11,573.78 16,165.55 .716 .675 .027 .702 59 13.8	11,089.34 15,767.90 .703 .682 .027 .709 57 14.4	10,509.40 14,891.80 .706 .686 .028 .714 55 15.0	8,021.27 12,665.50 .633 .679 .029 .708 68 17.3	7,421.26 12,765.10 .582 .667 .030 .697 55 14.6	9,450.56 16,231.60 .582 .656 .029 .685 58 14.6	9,562.41 16,215.05 .590 .648 .030 .678 58 15.5	12,807.86 21,941.90 .584 .640 .029 .669 59 15.6	9,357.55 15,941.85 .587 .635 .029 .664 66 16.5	9,752.47 16,269.45 .599 .632 .030 .662 57 15.0	122,200.80 193,505.70 .632 .630 .662 59 15.2
All Loaders "C" Mine Superior	Mine Expenditure Total Tons Mine Cost per ton Cost per ton - Period Depreciation - Period Total Cost - Period Av. Mach. Shift Tonnage Av. Man Shift Tonnage	10,204.55 13,072.00 .781 .781 .025 .806 62 13.4	12,393.09 16,848.00 .735 .755 .022 .777 63 14.3	9,130.11 12,514.10 .730 .748 .023 .771 56 12.9	9,669.92 13,107.55 .738 .745 .024 .769 57 13.6	9,011.10 11,400.75 .791 .753 .025 .778 50 12.4	6,094.86 8,372.95 .728 .750 .026 .776 62 13.9	5,249.37 8,144.90 .644 .740 .028 .768 58 13.0	9,051.72 14,678.30 .617 .721 .027 .740 63 14.1	8,709.95 14,374.30 .606 .707 .026 .733 59 13.9	12,491.91 20,096.15 .622 .694 .025 .719 59 13.9	9,823.49 15,631.45 .628 .687 .024 .711 62 13.7	8,946.67 13,835.60 .647 .684 .024 .708 54 12.5	110,776.74 162,076.05 .684 .684 .708 59 13.5
All Loaders "D" Mine Superior	Mine Expenditure Total Tons Mine Cost per ton Cost per ton - Period Depreciation - Period Total Cost - Period Av. Mach. Shift Tonnage Av. Man Shift Tonnage	5,558.91 7,005.00 .794 .794 .024 .818 35 12.5	6,394.30 9,510.00 .672 .724 .020 .744 36 14.0	6,051.40 8,173.20 .740 .729 .020 .749 35 12.1	6,661.42 8,696.95 .766 .739 .020 .759 36 11.8	5,523.45 7,539.25 .733 .738 .020 .758 37 12.6	4,132.98 5,164.30 .800 .745 .022 .767 31 11.2	4,442.61 7,602.20 .584 .722 .022 .744 41 12.5	7,177.64 11,301.45 .635 .707 .021 .728 38 12.4	6,941.67 11,685.65 .594 .690 .022 .712 40 12.7	9,342.55 16,529.75 .565 .668 .022 .690 44 13.7	7,578.74 13,213.50 .575 .656 .024 .680 43 13.5	8,133.05 15,249.35 .533 .641 .024 .665 42 14.2	77,958.72 121,670.60 .641 .624 .708 39 12.9
All Loaders Superior	Mine Expenditure Total Tons Mine Cost per ton Cost per ton - Period Depreciation - Period Total Cost - Period Av. Mach. Shift Tonnage Av. Man Shift Tonnage	25,009.44 35,146.00 .712 .712 .027 .739 54 13.9	32,276.31 45,939.00 .703 .707 .023 .730 54 14.6	26,755.29 36,852.85 .726 .713 .024 .737 51 13.1	27,420.68 37,572.40 .730 .717 .024 .741 50 13.4	25,043.95 33,831.80 .740 .721 .025 .746 48 13.5	18,249.11 26,202.75 .697 .718 .026 .744 53 14.6	17,113.24 28,512.20 .600 .704 .027 .731 51 13.5	25,679.92 42,211.35 .608 .690 .026 .716 52 13.8	25,214.03 42,275.00 .596 .678 .027 .705 52 14.1	34,642.32 50,567.80 .591 .665 .026 .691 54 14.4	26,779.78 44,786.80 .598 .658 .026 .684 56 14.5	26,832.19 45,354.40 .592 .652 .026 .678 50 13.9	311,016.26 477,252.35 .652 .626 .678 52 14.0
All Loaders No. 4 Mine Hanna	Mine Expenditure Total Tons Mine Cost per ton Cost per ton - Period Depreciation - Period Total Cost - Period Av. Mach. Shift Tonnage Av. Man Shift Tonnage	10,144.20 24,725.00 .410 .410 .047 .457 244 28.0	8,746.70 23,209.00 .377 .394 .049 .443 232 30.1	8,865.08 22,264.00 .398 .395 .050 .445 211 27.0	7,871.77 17,218.00 .457 .408 .053 .461 207 26.6	8,949.71 20,153.30 .444 .414 .054 .468 185 24.7	9,487.98 20,920.30 .453 .421 .054 .475 190 25.7	3,997.09 10,233.05 .390 .419 .059 .478 168 23.2	8,341.84 23,708.35 .352 .409 .057 .466 177 26.3	8,470.18 23,260.70 .364 .403 .057 .460 204 25.9	10,684.61 27,233.85 .392 .402 .055 .457 192 25.7	10,945.53 28,064.85 .390 .400 .054 .454 191 24.0	8,378.58 24,537.15 .341 .395 .053 .448 227 28.0	104,883.27 265,527.55 .395 .653 .678 202 26.3
All Loaders No. 6 Mine Hanna	Mine Expenditure Total Tons Mine Cost per ton Cost per ton - Period Depreciation - Period Total Cost - Period Av. Mach. Shift Tonnage Av. Man Shift Tonnage	475.39 459.00 1.036 1.036 .482 1.518 66 9.8	1,058.46 1,431.00 .740 .812 .234 1.046 80 13.5	1,592.61 1,931.00 .825 .818 .174 .992 85 12.5	1,022.24 1,138.00 .898 .836 .179 1.015 63 10.6	1,391.02 1,991.30 .698 .797 .159 .956 92 13.3	1,246.26 1,643.95 .758 .790 .154 .944 117 13.7	371.86 770.95 .482 .764 .163 .927 96 16.9	896.59 1,472.25 .609 .743 .160 .903 77 12.6	880.83 1,364.00 .646 .732 .158 .890 65 13.0	1,196.69 1,890.90 .646 .721 .150 .871 74 13.6	925.73 1,514.45 .611 .710 .147 .857 76 13.5	697.03 743.20 .938 .720 .151 .871 68 10.7	11,754.71 16,310.00 .720 .151 .871 79 12.9
All Loaders Hanna	Mine Expenditure Total Tons Mine Cost per ton Cost per ton - Period Depreciation - Period Total Cost - Period Av. Mach. Shift Tonnage Av. Man Shift Tonnage	10,619.59 25,184.00 .422 .422 .055 .477 232 27.1	9,805.16 24,640.00 .398 .410 .056 .466 209 28.1	10,457.69 24,195.00 .432 .417 .056 .473 189 24.7	8,894.01 18,356.00 .484 .431 .060 .491 182 24.3	10,340.73 22,144.60 .467 .438 .060 .498 169 23.0	10,734.24 22,564.25 .476 .444 .061 .505 182 24.1	4,368.95 11,004.00 .397 .440 .066 .506 159 22.6	9,238.43 25,180.60 .367 .430 .064 .494 165 24.7	9,351.01 24,624.70 .380 .423 .063 .486 182 24.6	11,881.30 29,084.75 .409 .422 .061 .483 174 24.3	11,871.26 29,579.30 .401 .419 .060 .479 177 23.1	9,075.61 25,280.35 .359 .414 .059 .473 212 26.8	116,637.98 281,837.55 .414 .059 .473 185 24.8
All Loaders All Districts	Mine Expenditure Total Tons Mine Cost per ton Cost per ton - Period Depreciation - Period Total Cost - Period Av. Mach. Shift Tonnage Av. Man Shift Tonnage	88,715.55 129,736.90 .684 .684 .036 .720 59 15.2	97,051.77 146,451.05 .663 .673 .034 .707 60 16.0	87,869.35 134,432.80 .654 .666 .035 .701 62 15.8	83,144.74 122,822.60 .677 .669 .035 .704 60 15.6	82,765.61 124,500.40 .665 .668 .036 .704 60 15.8	72,191.32 108,546.30 .665 .659 .039 .705 60 15.9	46,401.18 79,631.25 .583 .659 .038 .698 57 14.3	74,679.45 133,147.50 .561 .646 .038 .684 61 15.5	81,877.62 142,245.65 .576 .637 .038 .675 60 15.5	109,786.90 195,074.85 .563 .626 .036 .662 59 15.7	87,890.32 164,595.55 .534 .616 .035 .651 64 16.3	82,118.29 150,606.95 .545 .609 .035 .644 59 16.0	994,492.10 1,631,791.80 .609 .603 .644 60 15.7

STATEMENT SHOWING EXPENDITURES FOR SAFETY AND FIRST
AID AT ALL MINES AND GENERAL OFFICE
DURING THE YEAR 1932, COMPARED WITH THE YEAR 1931

		Rock Springs	Reliance	Winton	Superior	Hanna	Total Mines	General Office	Grand Total 1932	Grand Total 1931	Inc.-Black Dec.-Red
Safety Engineers	Labor							\$ 9,858.62	\$ 9,858.62	\$10,104.99	\$ 246.37
	Material							4,726.87A	4,726.87	2,246.34	2,480.53
	Total							14,585.49	14,585.49	12,351.33	2,234.16
Supervision	Labor				2,609.02		2,609.02		2,609.02	6,371.00	5,761.98
	Material										
	Total				2,609.02		2,609.02		2,609.02	8,371.00	5,761.98
Sprinkling Lines, Fit- tings, Hose, etc.	Labor	4,487.97	741.48	62.04	4,245.83	2,337.60	11,874.92		11,874.92	14,644.03	2,769.11
	Material	2,312.14	253.11	877.90	1,866.95	466.32	5,776.42		5,776.42	5,818.55	42.13
	Total	6,800.11	994.59	939.94	6,112.78	2,803.92	17,651.34		17,651.34	20,462.58	2,811.24
Rock Dusting	Labor	1,642.74	567.12	1,014.54	764.28	681.43	4,670.11		4,670.11	5,585.06	914.95
	Material	2,355.33	821.71	1,379.56	1,967.99	1,787.77	8,312.36		8,312.36	8,982.42	670.06
	Total	3,998.07	1,388.83	2,394.10	2,732.27	2,469.20	12,982.47		12,982.47	14,567.48	1,585.01
Barriers, Gates, Signs, Refuge Man Holes, etc.	Labor	673.41	88.55	348.30	174.88	336.53	1,621.67		1,621.67	3,295.84	1,674.17
	Material	175.74	16.97	94.85	61.09	49.11	397.76		397.76	1,388.08	990.32
	Total	849.15	105.52	443.15	235.97	385.64	2,019.43		2,019.43	4,683.92	2,664.49
Safety Lamps (Flame)	Labor	310.58		7.01			317.59		317.59	449.54	131.95
	Material	74.20	25.93	173.98	65.62	94.05	433.78		433.78	476.02	42.24
	Total	384.78	25.93	180.99	65.62	94.05	751.37		751.37	925.56	174.19
Apparatus & First Aid	Labor	338.23			64.82	304.43	707.48		707.48	912.62	205.14
	Material	567.00	71.60	275.88	301.55	230.24	1,446.27		1,446.27	2,620.71	1,174.44
	Total	905.23	71.60	275.88	366.37	534.67	2,153.75		2,153.75	3,533.33	1,379.58
Examinations and Inspections	Labor	132.13	89.10	73.41	127.23	97.87	519.74		519.74	467.22	52.52
	Material										
	Total	132.13	89.10	73.41	127.23	97.87	519.74		519.74	467.22	52.52
Sampling Dust and Air	Labor	5.42	13.44				18.86		18.86	13.44	5.42
	Material										
	Total	5.42	13.44				18.86		18.86	13.44	5.42
Fire Extinguishers, Hose, etc.	Labor										
	Material	275.04	64.93	225.17	231.57	64.86	861.57		861.57	1,150.21	288.64
	Total	275.04	64.93	225.17	231.57	64.86	861.57		861.57	1,150.21	288.64
General	Labor	276.94	229.38	344.00	42.96	6.95	900.23		900.23	1,167.59	267.36
	Material			60.15			60.15		60.15		60.15
	Total	276.94	229.38	404.15	42.96	6.95	960.38		960.38	1,167.59	207.21
Miscellaneous	Labor									73.92	73.92
	Material							1,118.85B	1,118.85	1,414.84	295.99
	Total							1,118.85	1,118.85	1,488.76	369.91
Total Safety	Labor	7,867.42	1,729.07	1,849.30	8,029.02	3,764.81	23,239.62	9,858.62	33,098.24	45,085.25	11,987.01
	Material	5,759.45	1,254.25	3,087.49	4,494.77	2,692.35	17,288.31	5,845.72	23,134.03	24,097.17	963.14
	Total	13,626.87	2,983.32	4,936.79	12,523.79	6,457.16	40,527.93	15,704.34	56,232.27	69,182.42	12,950.15
Safety & First Aid Contests	Labor	120.76	52.70	84.98	6.13	412.26	676.83		676.83	660.92	15.91
	Material	213.11	229.67	28.77		210.74	682.29		682.29	986.90	304.61
	Total	333.87	282.37	113.75	6.13	623.00	1,359.12		1,359.12	1,647.82	268.70
Total Safety, and Safety and First Aid Contests 1932	Labor	7,988.18	1,781.77	1,934.28	8,035.15	4,177.07	23,916.45	9,858.62	33,775.07	45,746.17	11,971.10
	Material	5,972.56	1,483.92	3,116.26	4,494.77	2,903.09	17,970.60	5,845.72	23,816.32	25,084.07	1,267.75
	Total	\$13,960.74	\$3,265.69	\$5,050.54	\$12,529.92	\$7,080.16	\$41,887.05	\$15,704.34	\$57,591.39	\$70,830.24	\$13,238.85
Total Safety, and Safety and First Aid Contests - 1931		\$17,600.30	\$8,444.53	\$7,893.10	\$13,901.06	\$9,344.90	\$57,183.89	\$13,646.35	2,045,270.00	\$70,830.24	408,257.24
Tons Produced - 1932		546,274.00	250,392.10	309,195.00	535,027.35	404,381.55	2,045,270.00			2,453,527.24	
Tons Produced - 1931		713,473.50	271,041.85	383,736.09	642,265.65	443,010.15	2,453,527.24			2,453,527.24	
Cost per Ton - 1932		\$.026	\$.013	\$.016	\$.023	\$.018	\$.020	\$.008	\$.028	\$.029	\$.001
Cost per Ton - 1931		.025	.031	.021	.022	.021	.023	.006		.029	.001
Inc.-Black; Dec.-Red		.001	.018	.005	.001	.003	.003	.002			

A - Includes cost of automobiles given as safety awards \$2,014.00.

B - \$605.78 of this amount represents traveling expenses of Safety Engineer and his assistants.

COST TO MAINTAIN MINING MACHINES

Year Ending December 31, 1932

Location	Make	Average No. of Machines		Maintenance		Tons Cut	Cost Per Ton Cut	Total Production	Percentage Cut by Machines
		On Hand	In Use	Labor	Material				
Rock Springs No. 4 4 8 Total	Sullivan	8	5	\$ 200.94	\$ 909.72	65,110	.017	223,051.75	29.2
	Goodman	7	6	229.95	1,091.16	75,936	.017	Same	34.0
	Goodman	19	17	1,005.50	6,518.29	318,785	.024	323,222.25	98.6
	Total	34	28	1,436.39	8,519.17	459,831	.022	546,274.00	84.2
Reliance No. 1	Goodman	15	12	1,151.35	5,213.06	196,179	.032	250,392.10	78.4
Winton No. 1 1 Total	Sullivan	19	19	3,045.58	7,168.91	234,727	.044	309,195.00	75.9
	Goodman	6	6	876.26	454.81	67,951	.020	Same	22.0
Total		25	25	3,921.84	7,623.72	302,678	.038	309,195.00	97.9
Superior "B" "C" "E" Total	Jeffrey	14	14	491.22	944.91	195,319	.007	195,368.75	99.9
	Jeffrey	12	11	137.67	357.80	163,035	.003	173,813.50	93.8
	Jeffrey	11	11	1,034.69	1,087.24	139,790	.015	165,845.10	84.3
	Total	37	36	1,663.58	2,389.95	498,144	.008	535,027.35	93.1
Hanna No. 2 4 6 Total	Sullivan	6	5	1,403.19	2,501.64	101,431	.038	107,058.50	36.1
	Sullivan	2	2	237.14	370.08	16,345	.037	280,906.30	99.6
	Sullivan	8	7	1,640.33	2,871.72	117,776	.038	16,416.75	29.1
	Total	119	108	\$9,813.49	\$26,617.62	1,574,608	\$.023	404,381.55	77.0
Grand Total					\$36,431.11			2,045,270.00	

Note: All coal recovered from No. 4 Mine, Hanna, is actually undercut by mining machines. The 101,431 tons represents the first cut only, the balance, or top coal, being shot down after the removal of the first cut.

REPORT OF P. H. GARS

Year Ending December 31, 1932

Location	Cars on Hand Jan. 1, 1932	New Cars Built and Purchased	Cars Transferred Cars Received	Cars Abandoned, Lost, Sold and Transferred	Cars on Hand December 31, 1932		
					In Shop For Repairs	In Service	Total
Rock Springs No. 2	494			33		494 x	494
4	564				10	521	531
7	3			81	12	3 x	3
8	567			114	22	474	486
Total	1,628					1,492	1,514
Reliance No. 1	560	50	50	76	25	559	584
Winton No. 1	505			7	11	487	498
Superior "B"	376				1	375	376
"C"	453	23		33	19	424	443
"D"	177			50		127 x	127
"E"	376	4		11	3	366	369
Total	1,382	27		94	23	1,292	1,315
Hanna No. 2	93	5		7	2	89	91
4	298	11		22	6	281	287
6	15		8			23	23
Total	406	16	8	29	8	393	401
Grand Total	4,481	93	58	320	89	4,223	4,312

x - Ready for service when needed.

No. 2 Mine, Rock Springs, closed down February 15, 1927.

No. 7 Mine, Rock Springs, closed down December 31, 1927.

"D" Mine, Superior, closed down February 15, 1927.

COST OF OILING PIT CARS

ALL MINES

Year Ending December 31, 1932

Location	Material	Labor	Total Cost	Tons Produced	Cost Per Ton	Av. No. Cars in Service
Rock Springs	\$ 925.60	\$ 734.97	\$1,660.57	546,274.00	\$.003	1,082
Reliance	1,265.25	499.70	1,764.95	250,392.10	.007	544
Winton	1,062.56	239.53	1,302.09	309,195.00	.004	490
Superior	833.21	547.87	1,381.08	535,027.35	.003	1,346
Hanna	450.69	680.80	1,131.49	404,381.55	.003	401
Total	\$4,537.31	\$ 2,702.87	\$7,240.18	2,045,270.00	\$.004	3,863
	Bearing		Kind Lubricant Grease Used			
	Roller	Plain				
Rock Springs	80%	20%	Superla No. 39.			
Reliance	40%	60%	Vega "C".			
Winton	100%		Vico Transmission and Vega "C".			
Superior	96%	4%	Vico No. 1 and Vega "C"			
Hanna	17%	83%	Oconoe No. 10			

NUMBER OF PROPS USED

Year Ending December 31, 1932

Location	Mine	6°	7°	8°	9°	10°	12°	14°	16° & Over	Total
Rock Springs	No. 4	1,603	3,906	8,277	2,645	3,185	406		256	20,278
	8	3,446	8,719	21,010	1,162	860	200		1,907	37,304
	Total	5,049	12,625	29,287	3,807	4,045	606		2,163	57,582
Reliance	No. 1	6,953	440	694	1,196	594	238	321	31	10,467
Winton	No. 1	9,340	6,796	5,621	632	78	3,665		183	26,315
Superior	"B"	22,895	6,301	1,563		371	283		322	31,735
	"C"	206	11,049	9,451		414			1,362	22,482
	"E"	1,550	30,418	3,039		4,085	187		932	40,211
	Total	24,651	47,768	14,053		4,870	470		2,616	94,428
Hanna	No. 2			775		124	82	45	68	1,094
	4			2,900		1,251	416	68	180	4,815
	6			24			12			36
	Total			3,699		1,375	510	113	248	5,945
All Mines		45,993	67,629	53,354	5,635	10,962	5,489	434	5,241	194,737

COMPARATIVE STATEMENT OF COST OF PROPS

ALL MINES

Year Ending December 31, 1932

Location	Tons	Lineal Ft.	Total Cost	Cost Per Lineal Ft.	Cost Per Ton	Lineal Ft. Per Ton
Rock Springs						
No. 4	223,051.75	172,330	\$11,089.11	\$.064	\$.050	.773
8	323,222.25	314,205	20,457.77	.065	.063	.972
Total	546,274.00	486,535	31,546.88	.065	.058	.891
Reliance						
No. 1	250,392.10	71,168	4,073.36	.057	.016	.284
Winton						
No. 1	309,195.00	199,604	12,164.50	.061	.039	.646
Superior						
"B"	195,368.75	201,097	14,270.48	.071	.073	1.029
"C"	173,813.50	203,845	13,142.73	.065	.076	1.172
"E"	165,845.10	327,724	22,328.26	.068	.135	1.976
Total	535,027.35	732,666	49,741.47	.068	.093	1.369
Hanna						
No. 2	107,058.50	10,152	737.15	.073	.007	.095
4	280,906.30	45,471	3,409.71	.075	.012	.162
6	16,416.75	336	23.16	.069	.001	.021
Total	404,381.55	55,959	4,170.02	.075	.010	.138
Grand Total	2,045,270.00	1,545,932	\$101,696.23	\$.066	\$.050	\$.755

PROPS RECOVERED

ALL MINES

Year Ending December 31, 1932

Location	Tons Produced	Lineal Feet Recovered	Lineal Feet Per Ton
Rock Springs			
No. 4	223,051.75	21,054	.094
8	323,222.25	196,936	.609
Total	546,274.00	217,990	.399
Reliance No. 1	250,392.10	113,324	.453
Winton No. 1	309,195.00	93,803	.303
Superior			
"B"	195,368.75	122,343	.626
"C"	173,813.50	151,551	.872
"E"	165,845.10	81,612	.492
Total	535,027.35	355,506	.664
Hanna			
No. 2	107,058.50	1,177	.011
4	280,906.30	653	.002
6	16,416.75	-	-
Total	404,381.55	1,830	.005
Grand Total	2,045,270.00	782,453	.383

Note: In Hanna Mine No. 2 very little whole timber was recovered for use in other territory. Due to the squeezed condition timber is reused to the point of failure in the withdrawal of pillars. Broken timber in so far as possible is used for cap pieces.

In Hanna Mine No. 4 few pillars were withdrawn because of the danger of spontaneous firing of the coal brought about by the caved condition incident to pillar withdrawal.

NUMBER OF TIES USED

Year Ending December 31, 1932

Location	Mine	4½'	5'	5½'	8' & Over	Total
Rock Springs	No. 4		5,113			5,113
	No. 8		5,449			5,449
	Total		10,562			10,562
Roliance	No. 1	3,994	297		122	4,413
Winton	No. 1			11,964	2,719	14,683
Superior	"B"		2,312			2,312
	"C"		3,036			3,036
	"E"		7,421			7,421
	Total		12,769			12,769
Hanna	No. 2			441	2	443
	No. 4			3,718	204	3,922
	No. 6			462		462
	Total			4,621	206	4,827
All Mines		3,994	23,628	16,585	3,047	47,254

COMPARATIVE STATEMENT OF COST OF TIRES

ALL MINES

Year Ending December 31, 1932

Location	Tons	Lineal Ft.	Total Cost	Cost per Lineal Ft.	Cost Per Ton	Lineal Ft. Per Ton
Rock Springs						
No. 4	223,051.75	26,820.	\$ 2,097.89	\$.078	\$.009	.120
8	323,222.25	28,780	2,279.42	.079	.007	.089
Total	546,274.00	55,600	4,377.31	.079	.008	.102
Reliance						
No. 1	250,392.10	19,273	1,121.57	.058	.004	.077
Winton						
No. 1	309,195.00	78,757	5,069.88	.064	.016	.255
Superior						
"B"	195,368.75	11,465	576.47	.050	.003	.059
"G"	173,813.50	15,185	806.06	.053	.005	.087
"E"	165,845.10	37,110	1,883.78	.051	.011	.224
Total	535,027.35	63,760	3,266.31	.051	.006	.119
Hanna						
No. 2	107,058.50	2,446	163.75	.067	.002	.023
4	280,906.30	22,831	1,426.65	.063	.005	.081
6	16,416.75	2,541	154.84	.061	.009	.155
Total	404,381.55	27,818	1,745.24	.063	.004	.069
Grand Total	2,045,270.00	245,208	\$15,580.31	\$.064	\$.008	\$.120

REPORT OF HORSES AND MULES

Year Ending December 31, 1932

Location	On Hand Jan. 1, 1932		Received		Transferred, Died and Sold		On Hand Dec. 31, 1932	
	Horses	Mules	Horses	Mules	Horses	Mules	Horses	Mules
Rock Springs	22	6	0	0	6	0	16	6
Reliance	10	4	0	0	0	0	10	4
Winton	24	7	0	0	4	2	20	5
Superior	16	13	0	0	3	0	13	13
Hanna	23	0	2	0	1	0	24	0
Total	95	30	2	0	14	2	83	28

FEED AND CARE OF STOCK

ALL MINING DISTRICTS

Year Ending December 31, 1932

Location	Labor	Material	Total	Average No. Head	Av. Cost Per Head Per Month
Rock Springs	\$ 3,072.54	\$ 3,855.89	\$ 6,928.43	25	\$23.09
Reliance	1,395.02	1,724.22	3,119.24	14	18.57
Winton	2,181.85	3,239.79	5,421.64	27	16.73
Superior	2,594.85	4,025.48	6,620.33	28	19.71
Hanna	1,302.96	3,257.77	4,560.73	23	16.52
Total	\$10,547.22	\$16,103.15	\$26,650.37	117	\$18.98

NUMBER OF POUNDS OF PERMISSIBLE POWDER USED IN PRODUCTION OF COAL
Year Ending December 31, 1932

Month	Rock Springs		Reliance	Winton	Superior			Hanna			Total				
	4	8			All	1	B	C	E	All		2	4	6	All
Jan.	1,170	7,278	8,448	3,032	4,350	2,500	2,500	1,500	6,500	6,500	2,205	6,118	200	6,318	28,648
Feb.	882	192	1,074	795	270	3,000	172	690	862	8,500	1,883	6,364	622	2,205	5,206
	1,400	5,796	7,196	3,632	6,000	3,000	3,500	2,000	8,500	8,500	1,883	6,364	622	2,205	32,314
Mar.	1,020	156	1,176	885	97	3,000	128	825	953	7,500	1,883	6,118	699	1,883	4,994
	950	5,816	6,766	3,580	4,750	3,000	2,500	2,000	7,500	7,500	1,785	6,118	699	1,883	29,413
Apr.	774	84	858	728	30	2,500	72	477	549	6,000	1,785	4,500	447	1,785	3,950
	1,040	5,916	6,956	3,040	4,307	2,500	2,000	1,500	6,000	6,000	1,215	4,500	447	1,785	25,250
May	798	798	798	660	5,600	3,000	88	363	451	7,500	1,215	6,000	721	1,215	3,124
	1,260	5,284	6,544	2,375	5,600	3,000	2,500	2,000	7,500	7,500	1,620	6,000	721	1,620	26,740
June	979	5,404	6,383	630	4,150	2,000	127	434	561	5,000	1,620	5,818	517	1,620	3,790
	950	5,404	6,354	1,992	4,150	2,000	2,000	1,000	5,000	5,000	1,380	2,466	307	1,380	2,223
July	735	2,120	2,855	533	3,050	2,300	72	203	275	5,500	735	2,466	307	735	16,555
	430	5,661	6,091	2,592	4,900	3,500	61	209	270	8,500	735	6,018	678	735	2,343
Aug.	840	13	853	908	4,900	3,500	3,000	2,000	8,500	8,500	1,575	6,018	678	1,575	28,894
	929	5,441	6,370	2,297	4,750	3,000	44	105	149	8,000	1,575	6,200	644	1,575	3,506
Sept.	1,400	52	1,452	840	4,750	3,000	3,000	2,000	8,000	8,000	2,010	6,200	644	2,010	29,809
	834	6,886	7,720	3,374	7,350	4,500	28	110	138	12,000	2,010	8,941	825	2,010	3,843
Oct.	2,250	53	2,303	4,100	5,800	4,500	4,000	3,500	12,000	12,000	2,325	8,941	825	2,325	42,352
	918	6,766	7,684	1,455	5,800	3,350	4,000	83	83	9,350	2,325	8,600	550	2,325	4,834
Nov.	1,800	751	2,551	3,184	4,700	3,350	4,000	2,000	9,350	9,350	1,755	8,600	550	1,755	36,050
	751	5,201	5,952	605	4,700	3,000	3,000	2,500	8,500	8,500	1,755	6,100	246	1,755	4,834
Dec.	1,950	708	2,658	3,555	4,700	3,000	3,000	2,500	8,500	8,500	1,500	6,100	246	1,500	36,050
	708	550	1,258	565	4,700	3,000	3,000	2,500	8,500	8,500	1,500	6,100	246	1,500	36,050
Total	15,530	67,571	83,101	36,753	59,707	35,650	33,500	23,700	92,850	92,850	19,988	73,243	6,456	79,699	352,110
	9,761	550	10,311	9,413	397	792	792	3,499	4,291	4,291	19,988	73,243	6,456	19,988	44,400

Employee's Powder - Black
Company's Powder - Red

TONS OF COAL PER POUND OF PERMISSIBLE POWDER
RECOVERED BY MINERS, LOADERS AND MECHANICAL LOADERS
Year Ending December 31, 1932

	Rock Springs	Reliance	Winton	Superior	Hanna	Total
Tons Mined by Miners	85,934.25	51,289.70	4,896.20	35,206.25	106,386.55	283,712.95
Tons Mined by Loaders	65,421.00	13,078.60		16,014.05	3,357.95	97,871.60
Tons Mined by Mechanical Loaders	390,266.50	182,901.15	299,532.25	477,252.35	281,837.55	1,631,791.80
Tons Company Coal	4,650.25	3,122.65	4,766.55	6,554.70	12,799.50	31,893.65
Total Tons Mined	546,274.00	250,392.10	309,195.00	535,027.35	404,381.55	2,045,270.00
Pounds of Powder Used by Miners	6,322.00	7,904.00	397.00	3,190.00	19,988.00	37,801.00
Pounds of Powder Used by Loaders	3,989.00	1,509.00		1,101.00		6,599.00
Pounds of Powder Used by Mechanical Loaders	82,006.50	36,618.00	57,882.00	91,450.00	73,267.00	341,223.50
Additional Pounds of Powder Used by Company in Recovery of Coal	1,095.00	135.00	1,825.00	1,400.00	6,432.00	10,887.00
Total Pounds of Powder Used in Recovery of Coal	93,412.50	46,166.00	60,104.00	97,141.00	99,687.00	396,510.50
Tons of Coal for Each Pound of Powder-Miners	13.6	6.5	12.3	11.0	5.3	7.5
Tons of Coal for Each Pound of Powder-Loaders	16.4	8.7		14.6		14.8
Tons of Coal for Each Pound of Powder-Mech. Loaders	4.8	5.0	5.2	5.2	3.9	4.8
Average Tons of Coal for Each Pound of Powder	5.9	5.4	5.1	5.5	4.1	5.2

Note: No hand loaders employed on contract basis in Winton or Hanna Mines. The 3357.95 tons shown as coal mined by loaders at Hanna was machine-cut coal loaded in November and December by men paid on day rate basis.

COST OF MAINTENANCE AND OPERATION
OF
AUTOMOBILES
Year Ending December 31, 1932

PASSENGER CARS								COST PER HUNDRED MILES						
Kind of Car	Where and How Used	Gasoline	Oil	Tires	Other Materials	Labor	Total	Mileage	Gasoline	Oil	Tires	Other Materials	Labor	Total
Dodge Sedan xx	Vice Pres. & Genl. Mgr. - Rock Springs	\$ 25.50	\$ 7.00	\$ 1.25	\$ 41.39	\$ 54.14	\$ 129.28	1,490	\$1.711	\$.470	\$.084	\$ 2.778	\$3.634	\$ 8.677
Dodge Sedan xxx	Vice Pres. & Genl. Mgr. - " "	141.39	13.75	4.50	171.58		331.22	9,734	1.453	.141	.046	1.763		3.403
Dodge Sedan	Assistant General Mgr. - " "	261.51	69.30	64.14	379.82	104.28	879.05	16,898	1.548	.410	.379	2.248	.617	5.202
Dodge Sedan	Mine Superintendent	158.00	20.38	10.73	124.26	46.92	360.29	8,964	1.763	.227	.120	1.386	.523	4.019
Dodge Sedan x	Safety Engineer	45.37	11.50		33.57		90.44	2,270	1.999	.506		1.479		3.984
Dodge Sedan xx	Safety Engineer	185.83	35.35	43.19	152.09	101.30	517.76	7,488	2.482	.472	.576	2.031	1.353	6.914
Chevrolet Coach	Employment Department	204.35	19.01	22.42	272.20	104.01	621.99	8,523	2.398	.223	.263	3.193	1.220	7.297
Dodge Sedan x	Manager of Stores	78.03	6.50	3.25	41.30		129.08	3,783	2.062	.172	.086	1.092		3.412
Dodge Sedan xxxx	Manager of Stores	107.18	13.30		38.29	1.25	160.02	8,416	1.273	.158		.455	.015	1.901
Chevrolet Coach	Mine Superintendent Hanna	2.78	.50		21.94		25.22	166	1.675	.301		13.215		15.191
Total - Passenger Cars		\$1,209.94	\$196.59	\$149.48	\$1,276.44	\$411.90	\$3,244.35	67,732	\$1.786	\$.290	\$.221	\$ 1.885	\$.608	\$ 4.790
Percentage		37%	6%	5%	39%	13%	100%		37%	6%	5%	39%	13%	100%
TRUCKS														
White 2½-Ton	Material Department Rock Springs	\$ 362.03	\$ 44.05	\$141.76	\$ 185.87	\$128.13	\$ 861.84	5,649	\$6.409	\$.780	\$2.509	\$ 3.290	\$2.267	\$15.255
Ford 1½-Ton	Mech. & Elec. Depts. " "	193.87	38.55	52.23	137.58	137.13	559.36	7,384	2.625	.522	.707	1.863	1.857	7.574
White 3½-Ton	General Use " "	298.63	72.00	102.15	360.94	164.90	998.62	4,496	6.642	1.601	2.272	8.028	3.668	22.211
Ford 1½-Ton	Mine Department " "	106.52	29.50	29.15	110.77	62.11	338.05	4,011	2.655	.736	.727	2.762	1.548	8.428
Dodge ½-Ton	Engineering Department " "	126.66	19.82	14.71	138.66	86.70	386.55	5,263	2.406	.377	.280	2.634	1.647	7.344
Dodge 1-Ton	Manager of Stores " "	313.94	35.00	28.42	629.30	8.97	1,015.63	16,116	1.948	.217	.176	3.905	.056	6.302
Ford 1½-Ton	Store Department " "	124.20	46.99		199.81	14.44	385.44	6,594	1.884	.713		3.030	.219	5.846
Dodge ½-Ton	Store Department " "	111.45	35.52	22.68	159.67		329.32	5,429	2.053	.654	.418	2.941		6.066
Ford 1½-Ton	Store Department " "	233.25	66.16	94.72	145.10	4.44	543.67	9,993	2.334	.662	.948	1.452	.044	5.440
Graham ½-Ton x	Bakery " "	124.36	26.45	33.31	130.96	7.01	322.09	7,839	1.586	.338	.425	1.671	.089	4.109
Dodge 1½-Ton xxxx	Bakery " "	133.40	23.24		56.99		213.63	7,350	1.815	.316		.775		2.906
Ford 1½-Ton	Mine Department Reliance	166.39	27.25	32.50	129.86	174.93	530.93	5,383	3.090	.506	.604	2.413	3.250	9.863
Ford 1½-Ton	Mine Department " "	211.01	45.75	124.00	131.17	109.15	621.08	7,427	2.841	.616	1.669	1.766	1.470	8.362
Dodge 1½-Ton xxxxx	Mine Department Winton	27.39	2.22	3.19	21.24	5.50	59.54	625	4.385	.352	.510	3.399	.880	9.526
Ford 1½-Ton	Mine Department " "	132.93	25.16	33.70	176.86	118.77	487.42	3,500	3.798	.719	.963	5.052	3.396	13.928
Ford 1½-Ton	Mine Department " "	163.33	19.50	61.80	137.49	182.48	564.60	4,101	3.983	.476	1.507	3.352	4.449	13.767
Ford 1½-Ton	Electrical Department Superior	115.59	25.83		122.28	54.02	317.72	3,067	3.769	.842		3.987	1.762	10.360
Ford 1½-Ton	Material Department " "	91.94	12.85	27.01	100.49	25.56	257.85	2,066	4.450	.622	1.307	4.864	1.237	12.480
Ford 1½-Ton	Mine Department " "	124.20	12.50	40.88	117.08	51.12	345.78	3,146	3.948	.397	1.299	3.721	1.625	10.990
White 2½-Ton	Mine Department " "	314.47	32.83		310.30	210.49	868.09	3,774	8.332	.870		8.222	5.576	23.000
Dodge ½-Ton	Store Department " "	192.06	28.54	25.22	142.43	79.11	467.36	6,221	3.087	.459	.405	2.290	1.272	7.513
Ford 1½-Ton	Store Department " "	143.99	17.97		66.09	31.30	259.35	3,319	4.339	.541		1.991	.943	7.814
Ford 1½-Ton	Mine Department Hanna	74.89	17.97		111.19	83.90	287.95	3,593	2.085	.500		3.094	2.335	8.014
White 2½-Ton	Mine Department " "	134.93	20.10		107.47	53.91	316.41	3,896	3.464	.516		2.758	1.383	8.121
Ford 1½-Ton	Mine Department " "	78.61	11.92		62.91	59.52	212.96	2,508	3.134	.475		2.508	2.373	8.490
Dodge ½-Ton	Store Department " "	132.30	33.80	14.69	67.53	69.32	317.64	7,204	1.837	.469	.204	.937	.962	4.409
Dodge 1½-Ton	Store Department " "	156.57	33.20	3.00	70.24	18.72	281.73	7,782	2.012	.427	.039	.903	.241	3.622
Total - Trucks		\$4,388.91	\$804.67	\$885.12	\$4,130.28	\$1,941.63	\$12,150.61	147,736	\$2.971	\$.545	\$.599	\$2.796	\$1.314	\$8.225
Percentage		36%	7%	7%	34%	16%	100%		36%	7%	7%	34%	16%	100%
GRAND TOTAL		\$5,598.85	\$1,001.26	\$1,034.60	\$5,406.72	\$2,353.53	\$15,394.96	215,468	\$2.598	\$.465	\$.480	\$2.510	\$1.092	\$7.145
PERCENTAGE		36%	7%	7%	35%	15%	100%		36%	7%	7%	35%	15%	100%

x - Sold. xx - Transferred from Vice Pres. & Genl. Mgr. to Safety Engineer.
xxxxx - Purchased second-hand from Washington Union Coal Company Oct. 19, 1932.

xxx - Purchased new April 26, 1932.

xxxxx - Purchased new July 9, 1932.

TENEMENTS AND OTHER BUILDINGS - REAL ESTATE DEPARTMENT

NUMBER, VALUE, RECEIPTS AND EXPENSES

Year Ending December 31, 1932

Location	Number	Original Cost Less Accrued Depreciation	Total Receipts	Depreciation	Other Expenses Including Taxes	Net Receipts
Rock Springs	277	\$ 149,907.42	\$ 37,380.79	\$ 11,849.16	\$ 31,669.47	\$6,137.84
Reliance	145	37,594.92	19,229.09	4,911.06	15,635.37	1,317.34
Winton	166	126,098.33	22,049.24	8,363.18	13,760.73	94.67
Superior	265	49,079.24	35,729.49	2,321.89	25,741.70	7,665.90
Hanna	271	68,083.30	29,737.74	4,163.22	21,961.58	3,612.94
Pleasant Valley	38	1,861.91	148.00	73.45	126.48	51.93
Total	1,182	\$ 432,625.12	\$144,274.35	\$ 31,701.96	\$108,895.33	\$3,677.06

Note: Under "Other Expenses, Including Taxes" are included such items not directly connected with the repairing of tenements, as proportion of superintendence, proportion of salary of Land Agent (Rock Springs), cleaning camp, electric energy furnished for street lighting, water for fire protection and miscellaneous expenses which, although not directly connected with the repairing of houses and public buildings, are undertaken for the benefit of the tenements and the town as a whole.

The following items have been excluded from the above Expenses:

Surveys and Examinations \$1,056.74
 Proportion Salaries & Expenses, Land and Tax Commissioners 2,745.73
 Depreciation on Sewer and Paving Assessments 1,353.72
 Depletion Lands Leased to Others 14,448.62
 Taxes - Ordinary and Adjustment of 1931 Income Tax, Estimated applicable to Lots, Lands, etc., other than Tenements 2,921.48
 Purchase Price of Fences - Weld County, Colorado 900.00
 Other General Expenses 1,384.01 ✓
 \$24,610.30

RENTALS COLLECTED FROM LEASED LANDS

Year Ending December 31, 1932

Sweetwater County, Wyoming	\$ 3,917.51
Carbon County, Wyoming	2,080.64
Lincoln County, Wyoming	206.03
Uinta County, Wyoming	2,159.64
State of Colorado	6,331.94
State of Utah	665.69
TOTAL	\$15,361.45

ROYALTIES COLLECTED FROM LEASED COAL LANDS

Year Ending December 31, 1932

Sweetwater County, Wyoming	\$ 6,425.23
Carbon County, Wyoming	None
Uinta County, Wyoming	None
Lincoln County, Wyoming	131.25
State of Colorado	48,735.24
State of Utah	3,262.72
TOTAL	\$58,554.44

STATEMENT OF PAY ROLLS (EXCEPT MERCHANDISE STORES)

Year Ending December 31, 1932

Month	Rock Springs Mines	Reliance Mines	Winton Mines	Superior Mines	Hanna Mines	All Mines	Engr. Dept.	Accounting Dept.	Asst. Treas. Dept.	General Office	Spl. Pay Roll (Exam- ination of Mines)	Pensions	R.S. Club House	Grand Total
Jan.	\$ 61,918.90	\$ 22,277.92	\$ 33,579.65	\$ 51,122.48	\$ 36,350.61	\$ 205,249.56	\$ 2,430.00	\$ 3,625.00	\$ 560.00	\$ 8,392.49	\$	\$ 2,056.23	272.50	\$ 222,585.78
Feb.	60,114.31	26,126.72	36,381.39	60,907.16	36,365.27	219,894.85	2,187.00	3,262.50	504.00	7,601.91		2,056.23	272.50	235,778.99
Mar.	57,900.56	22,877.59	34,409.62	52,241.55	38,270.20	205,699.52	2,029.50	3,238.55	504.00	7,346.20		2,167.67	253.50	221,238.94
Apr.	56,096.88	20,238.40	29,000.64	50,707.53	30,348.42	186,391.87	2,029.50	3,202.50	504.00	7,387.00		2,246.23	257.17	202,018.27
May	55,161.78	23,083.62	31,014.07	48,207.95	37,420.34	194,887.76	2,029.50	3,190.26	504.00	7,387.00		2,285.08	252.50	210,536.10
June	55,372.01	15,038.96	28,554.99	36,111.17	36,887.17	171,964.30	2,029.50	3,248.67	504.00	7,383.50		2,220.73	188.50	187,539.20
July	27,368.86	18,034.40	18,545.84	35,689.45	21,443.93	121,082.48	2,029.50	3,262.50	473.52	7,382.50		2,242.99	82.50	136,555.99
Aug.	49,325.83	17,996.79	24,460.41	45,909.48	33,911.27	171,603.78	2,029.50	3,157.26	504.00	7,441.31		2,250.73	103.23	187,089.81
Sept.	50,646.16	21,470.90	27,259.09	43,006.36	34,664.27	177,046.78	1,664.25	3,171.45	504.00	7,387.00	250.00	2,250.73	119.67	192,393.88
Oct.	63,188.46	27,587.04	33,319.94	54,774.98	40,009.11	218,879.53	1,563.00	2,902.50	504.00	7,372.61	120.97	2,250.73		233,593.34
Nov.	55,101.57	19,649.18	26,037.43	41,548.62	34,827.06	177,163.86	1,563.00	2,902.50	504.00	6,762.75		2,250.73		191,146.84
Dec.	49,774.93	19,365.72	24,645.16	43,881.15	30,563.65	168,230.61	1,563.00	2,902.50	504.00	6,753.50		2,250.73		182,204.34
TOTAL	\$641,970.25	\$253,747.24	\$347,208.23	\$564,107.88	\$411,061.30	\$2,218,094.90	\$23,147.25	\$38,066.19	\$6,073.52	\$88,597.77	\$370.97	\$26,528.81	\$1,802.07	\$2,402,681.48

SUMMARY OF NUMBER OF UNION EMPLOYEES, DAYS WORKED, EARNINGS, ETC.,
DURING THE YEAR ENDING DECEMBER 31, 1932

ROCK SPRINGS MINES

Class of Labor 1	Possible Number of Working Days 2	Average Number of Pay Roll Employees 3	Days Mine Worked (Hoisted Coal Days) 4	Actual Shifts Worked 5	Total Earnings 6	Deductions for (A) Explosives (B) Lamp Rental 7		Net Earnings 8=6-7	Average Earnings Per Man		Percentage of Days Worked to Total Working Days	
						(A)	(B)		Per Day	Per Month	By Mines 11=4x2	Actual 12=5÷(2x3)
									9=8÷5	10=(12x2x9) ÷12		
Machine Runners & Helpers	306	38.8	143.92	5,946	\$ 46,168.79	\$	\$ 416.22	\$ 45,752.57	\$7.69	\$ 98.24	47.0	50.1
Miners & Loaders	306	119.7	132.86	14,902	114,203.22	2,515.43	1,043.14	110,644.65	7.42	77.01	43.4	40.7
Haulage Men	306	60.2	141.75	9,499	58,003.98		664.93	57,339.05	6.04	79.47	46.3	51.6
Timbermen and Trackmen	306	40.8	145.44	7,164	45,363.79		501.48	44,862.31	6.26	91.63	47.5	57.4
General Inside	306	42.0	145.95	7,502	47,598.26		525.14	47,073.12	6.27	93.37	47.7	58.4
Mechanical Loading	306	132.8	146.70	21,825	157,660.01	1,771.53	1,527.75	154,360.73	7.07	96.81	47.9	53.7
Surface Men	306	25.1	142.66	4,458	23,932.40			23,932.40	5.37	79.42	46.6	58.0
General Outside	306	57.0	141.74 x	14,991	83,657.80			83,657.80	5.58	122.23	46.3	85.9
TOTAL	306	516.4	141.80	86,287	\$576,588.25	\$4,286.96	\$4,678.66	\$567,622.63	\$6.58	\$ 91.61	46.3	54.6
RELIANCE MINES												
Machine Runners & Helpers	306	17.6	137	3,091	\$ 24,044.08	\$	\$ 216.37	\$ 23,827.71	\$7.71	\$112.85	44.8	57.4
Miners & Loaders	306	49.2	137	5,948	47,950.56	2,342.00	416.36	45,192.20	7.60	76.55	44.8	39.5
Haulage Men	306	25.7	137	4,521	27,805.28		316.47	27,488.81	6.08	89.15	44.8	57.5
Timbermen and Trackmen	306	8.6	137	1,581	9,686.03		110.67	9,575.36	6.06	92.87	44.8	60.1
General Inside	306	11.4	137	2,575	16,279.77		180.25	16,099.52	6.25	117.62	44.8	73.8
Mechanical Loading	306	44.3	137	8,042	59,215.01		562.94	58,652.07	7.29	110.24	44.8	59.3
Surface Men	306	28.7	137	6,628	37,787.96			37,787.96	5.70	109.74	44.8	75.5
TOTAL	306	185.5	137	32,386	\$222,768.69	\$2,342.00	\$1,803.06	\$218,623.63	\$6.75	\$ 98.28	44.8	57.1

X - Average "Hoisted Coal Days" worked by Mines.

SUMMARY OF NUMBER OF UNION EMPLOYEES, DAYS WORKED, EARNINGS, ETC.,
DURING THE YEAR ENDING DECEMBER 31, 1932

WINTON MINES

Class of Labor 1	Possible Number of Working Days 2	Average Number of Pay Roll Employees 3	Days Mine Worked (Hoisted Coal Days) 4	Actual Shifts Worked 5	Total Earnings 6	Deductions for (A) Explosives (B) Lamp Rental 7		Net Earnings 8=6-7	Average Earnings Per Man		Percentage of Days Worked to Total Working Days	
						(A)	(B)		Per Day 9=8÷5	Per Month 10=(12x2x9) ÷12	By Mines 11=4÷2	Actual 12=5÷(2x3)
Machine Runners & Helpers	306	38.4	135	6,586	\$ 47,703.09	\$	\$ 461.02	\$ 47,242.07	\$7.17	\$102.39	44.1	56.0
Miners & Loaders	306	2.2	135	323	2,227.74	103.75	22.61	2,101.38	6.51	79.68	44.1	48.0
Haulage Men	306	30.8	135	6,184	38,191.80		432.88	37,758.92	6.11	102.21	44.1	65.6
Timbermen and Trackmen	306	22.3	135	4,410	27,898.36		308.70	27,589.66	6.26	103.12	44.1	64.6
General Inside	306	30.0	135	6,017	37,664.46		421.19	37,243.27	6.19	103.39	44.1	65.5
Mechanical Loading	306	85.5	135	14,863	103,409.49		1,040.41	102,369.08	6.89	99.79	44.1	56.8
Surface Men	306	31.1	135	7,216	42,611.19			42,611.19	5.91	114.23	44.1	75.8
TOTAL	306	240.3	135	45,599	\$299,706.13	\$ 103.75	\$2,686.81	\$296,915.57	\$6.51	\$102.92	44.1	62.0

SUPERIOR MINES

Machine Runners & Helpers	306	48.7	122.9	8,435	\$ 63,189.51	\$	\$ 590.45	\$ 62,599.06	\$7.42	\$107.09	40.2	56.6
Miners & Loaders	306	39.1	121.0	4,389	37,348.65	1,084.75	307.23	35,956.67	8.19	76.65	39.5	36.7
Haulage Men	306	37.3	122.8	6,768	41,860.89		473.76	41,387.13	6.12	92.54	40.1	59.3
Timbermen and Trackmen	306	41.6	123.1	8,385	52,841.52		586.95	52,254.57	6.23	104.69	40.2	65.9
General Inside	306	23.1	123.5	4,182	25,653.33		292.74	25,360.59	6.06	91.48	40.4	59.2
Mechanical Loading	306	183.0	123.6	30,706	216,627.17		2,149.42	214,477.75	6.98	97.54	40.4	54.8
Surface Men	306	30.0	123.3	6,376	35,041.77			35,041.77	5.50	97.47	40.3	69.5
General Outside	306	22.3	122.9 X	5,898	33,349.73			33,349.73	5.65	124.48	40.2	86.4
TOTAL	306	425.1	123.1	75,139	\$505,912.57	\$1,084.75	\$4,400.55	\$500,427.27	\$6.66	\$ 98.16	40.2	57.8

X - Average "Hoisted Coal Days" worked by Mines.

SUMMARY OF NUMBER OF UNION EMPLOYEES, DAYS WORKED, EARNINGS, ETC.,
DURING THE YEAR ENDING DECEMBER 31, 1932

MAHNA MINES

Class of Labor 1	Possible Number of Working Days 2	Average Number of Pay Roll Employees 3	Days Mine Worked (Hoisted Coal Days) 4	Actual Shifts Worked 5	Total Earnings 6	Deductions for (A) Explosives (B) Lamp Rental 7		Net Earnings 8=6-7	Average Earnings Per Man Per Day Per Month 10=(12x2x9) ÷12		Percentage of Days Worked to Total Working Days By Mines Actual 11=4÷2 12=5÷(2x3)	
						(A)	(B)		9=8÷5	10=12x2x9 ÷12	11=4÷2	12=5÷(2x3)
Machine Runners & Helpers	306	10.5	197.90	2,222	\$ 15,637.56	\$	\$ 155.54	\$ 15,484.02	\$6.97	\$122.99	64.7	69.2
Miners & Loaders	306	51.4	142.75	7,190	83,203.76	3,947.25	503.30	78,753.21	10.95	127.61	46.7	45.7
Haulage Men	306	27.5	192.20	5,862	34,938.37		410.34	34,528.03	5.89	104.69	62.8	69.7
Timbermen and Trackmen	306	11.3	192.20	2,430	14,661.07		170.10	14,490.97	5.96	106.84	62.8	70.3
General Inside	306	30.3	192.00	7,003	45,028.29		490.21	44,538.08	6.36	122.45	62.7	75.5
Mechanical Loading	306	45.3	201.70	9,670	68,554.53		676.90	67,877.63	7.02	124.95	65.9	69.8
Surface Men	306	25.3	190.00	6,686	38,135.82			38,135.82	5.70	125.58	62.1	86.4
General Outside	306	40.6	182.00 X	10,656	\$ 59,772.91			59,772.91	5.61	122.74	59.5	85.8
TOTAL	306	242.2	181.80	51,719	\$359,934.31	\$3,947.25	\$2,406.39	\$353,580.67	\$6.84	\$121.75	59.4	69.8

X - Average "Hoisted Coal Days" worked by Mines.

SUMMARY BY CLASSES OF LABOR, ALL DISTRICTS, OF NUMBER OF UNION EMPLOYEES, DAYS
WORKED, EARNINGS, ETC., DURING THE YEAR ENDING DECEMBER 31, 1932

Class of Labor 1	Possible Number of Working Days 2	Average Number of Pay Roll Employees 3	Days Mine Worked (Hoisted Coal Days) 4	Actual Shifts Worked 5	Total Earnings 6	Deductions for (A) Explosives (B) Lamp Rental 7		Net Earnings 8=6-7	Average Earnings Per Man Per Day Per Month 9=8:5 10=(12x2x9) 412		Percentage of Days Worked to Total Working Days By Mines 11=4:2 12=5:4 (2x3)	
						(A)	(B)		9=8:5	412	11=4:2	12=5:4 (2x3)
Machine Runners & Helpers	306	154.0	137.9	26,280	\$196,745.03	\$	\$ 1,839.60	\$ 194,905.43	\$7.42	\$105.58	45.1	55.8
Miners & Loaders	306	261.6	133.8	32,752	284,933.93	9,993.18	2,292.64	272,648.11	8.32	86.77	43.7	40.9
Haulage Men	306	181.5	143.7	32,834	200,800.32		2,298.38	198,501.94	6.05	91.18	47.0	59.1
Timbermen & Trackmen	306	124.6	139.8	23,970	150,450.77		1,677.90	148,772.87	6.21	99.61	45.7	62.9
General Inside	306	136.8	149.2	27,279	172,224.11		1,909.53	170,314.58	6.24	103.75	48.8	65.2
Mechanical Loading	306	490.9	140.3	85,106	605,466.21	1,771.53	5,957.42	597,737.26	7.02	101.50	45.8	56.7
Surface Men	306	140.2	144.2	31,364	177,509.14			177,509.14	5.66	105.51	47.1	73.1
General Outside	306	119.9	151.9 X	31,545	176,780.44			176,780.44	5.60	122.81	49.6	86.0
TOTAL	306	1,609.5	141.3	291,130	\$1,964,909.95	\$11,764.71	\$15,975.47	\$1,937,169.77	\$6.65	\$100.22	46.2	59.1

SUMMARY BY FIELDS AND MINING DISTRICTS OF NUMBER OF UNION EMPLOYEES, DAYS
WORKED, EARNINGS, ETC., DURING THE YEAR ENDING DECEMBER 31, 1932

Rock Springs Field:												
Rock Springs	306	516.4	141.8	86,287	\$ 576,588.25	\$ 4,286.96	\$ 4,678.66	\$ 567,622.63	\$6.58	\$ 91.61	46.3	54.6
Reliance	306	185.5	137.0	32,386	222,768.69	2,342.00	1,803.06	218,623.63	6.75	98.28	44.8	57.1
Winton	306	240.3	135.0	45,599	299,706.13	103.75	2,686.81	296,915.57	6.51	102.92	44.1	62.0
Superior	306	425.1	123.1	75,139	505,912.57	1,084.75	4,400.55	500,427.27	6.66	98.16	40.2	57.8
Total Rock Springs Field	306	1,367.3	134.1	239,411	\$1,604,975.64	\$ 7,817.46	\$13,569.08	\$1,583,589.10	\$6.61	\$ 96.41	43.8	57.2
Hanna	306	242.2	181.8	51,719	359,934.31	3,947.25	2,406.39	353,580.67	6.84	121.75	59.4	69.8
TOTAL ALL DISTRICTS	306	1,609.5	141.3	291,130	\$1,964,909.95	\$11,764.71	\$15,975.47	\$1,937,169.77	\$6.65	\$100.22	46.2	59.1

X - Average "Hoisted Coal Days" worked by Mines.

MINE EMPLOYERS
Year Ending December 31, 1932

Month	Rock Springs			Reliance		Winton		Superior				Hanna				Total
	2	4x	8	All	1x	1x	1x	Bx	C	D	E	All	2	4x	6	All
Jan.	1	306	266	573	210	272	169	156	1	157	483	73	198	1	272	1,810
Feb.	1	306	264	571	209	270	169	155	1	155	480	72	188	12	272	1,802
Mar.	1	304	258	563	208	272	170	154	1	150	475	69	187	12	268	1,786
Apr.	1	303	258	562	208	268	167	153	1	149	470	69	186	12	267	1,775
May	1	302	257	560	208	268	166	152	1	147	466	70	183	12	265	1,767
June	1	302	256	559	209	267	165	147	1	141	454	70	182	12	264	1,753
July	1	299	255	555	209	265	164	143	1	137	445	69	182	12	263	1,737
Aug.	1	297	255	553	209	263	164	142	1	136	443	68	182	12	262	1,730
Sept.	1	297	255	553	208	263	166	143	1	137	447	68	184	10	262	1,733
Oct.	1	296	254	551	206	261	167	142	1	138	448	67	184	10	261	1,727
Nov.	1	296	254	551	198	268	166	142	1	137	446	67	184	10	261	1,724
Dec.	1	295	254	550	197	268	166	142	1	137	446	66	184	9	259	1,720
AVE.	1	300	257	558	207	267	167	148	1	143	459	69	185	10	264	1,755

Note: Compiled from Mine Superintendents' Weekly Reports.
x - Includes Outside Employers.

OCCUPATION AND NUMBER OF MINE EMPLOYEES
As of December 31, 1932

Sheet 1

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INSIDE	Rock Springs	Reliance	Winton	Superior	Hanna	Total
Mine Foremen	2	1	1	3	3	10
Assistant Mine Foremen	2	1	2		1	6
Night Bosses	2		1	2		5
Gas Watchmen	6	2	2	3	4	17
Fire Watchmen		1				1
Sprinklers	2					2
Safety Inspectors		1		1		2
Pumpmen	2					2
Pipemen		1	2	3	2	8
Electricians	4	1	4	2	3	14
Assistant Electricians	2				2	4
Shot Firers	10				2	12
Blasters		1	8	13	3	25
Drillers	12	2	9	9	10	42
Powdermen	1		1	1		3
Miners	45	31			49	125
Loaders	41	12				53
Machine Bosses	2	1	1	3	1	8
Machine Runners	26	2	23	21	7	79
Machine Runners' Helpers	26	2	23	21	7	79
Hoistmen	8	3	5	8	4	28
Rope Runners, Main	4	1	2	3	3	13
Rope Runners, Panel & Sub-Slope	10	5	5	6	4	30
Motormen	24	12	13	8	4	61
Drivers	10	3	5	4	13	35
Rollermen	4	1	2			7
Doors and Brattice Men	2	1	2			5
Stopping Men		2	3		2	7
Timbermen and Prop Pullers	17	4	7	30	3	61
Tracklayers	13	4	6	6	8	37
Shovelmen (Scraper Loaders)	18	2	4			24
Unit Foremen - Mech. Loaders	4	2	4	10	2	22
Joy Operators			1		7	8
Joy Trimmers			1		13	14
Richhoff Trimmers	11			19		30
Richhoff Facemen	55			55		110
Scraper Hoist Operators	2	1	2			5
Scraper Trimmers	3	1	2			6
Scraper Facemen			10			10
Scraper Rope Riders	2		2			4
Repairmen - Mech. Loaders	4			3	2	9
Stock Tenders	2					2
Laborers	5		4	7	11	27
Mech. Loader Timbermen	12	3	6	18		39
Slate Pickers				2		2
Northern Pit Car Loader Facemen	14			9		23
Red Devil Pit Car Loader Facemen	14			6		20
Timekeepers	1			1	1	3
Track Bonders	2			2		4
Leaders of Company Coal	3		12		9	24
Casco Trimmers		13	7	23		43
Casco Facemen	16	11	12	71		110
Conveyor Men	8	16	18			42
Ratchetmen		16	12			28
Vulcan Trimmers				2		2
Vulcan Facemen				7		7
TOTAL	453	160	224	382	180	1,399

OCCUPATION AND NUMBER OF MINE EMPLOYEES
As of December 31, 1932

Sheet 2

OUTSIDE	Rock Springs	Reliance	Winton	Superior	Hanna	Total
Superintendents	1	1	1	1	1	5
Assistant Superintendents					1	1
Foremen		1				1
Engineers, Mining			1	1		2
Clerks	3	2	3	3	3	14
Chief Electricians	1			1	1	3
Assistant Electricians	3	1	2	1	3	10
House Inspectors			1		1	2
Watchmen	2	1	1	1	1	6
Janitors	1	1	1	1	1	5
Master Mechanics	1	1	1	1	1	5
Machinists	4	1	3	1	3	12
Machinists' Helpers	2				1	3
Pipe Fitters	2	2		1	1	6
Car Repairers	5	3	2	3	2	15
Blacksmiths	2	1	2	3	2	10
Blacksmiths' Helpers	1			1		2
Bit Sharpeners	1	1				2
Automobile Mechanics & Helpers	2					2
Carpenters	2	1	1	2	3	9
Masons				1		1
Stablenen	1	1	1	1		4
Teamsters or Truck Drivers	3	1	2	3	3	12
Laborers	10	2	1	12	13	38
Tippelmen	10	7	4	13	9	43
Car Droppers	6	2	4	2	3	17
Slate Pickers	4				1	5
Dock Bosses		1				1
Screens and Crushermen		1	1		1	3
Weigh Bosses	2	1		2	1	6
Weighmen			1		3	4
Box Car Loader Runners	1				1	2
Engineers, Hoisting	3	1	4	4	4	16
Rock Hoistmen					1	1
Motormen			2	1		3
Greasers		1	1			2
Chief Turbine Room Operators	1					1
Turbine Room Operators	3				3	6
Boiler Firemen	7				3	10
Boiler Cleaners	3				3	6
Boiler Makers	1					1
Coal Tenders	1				1	2
Ash Tenders	2					2
Pumpmen (Water Supply)	1		1	1		3
Lamphouse Attendants & Repairmen	2	1	1	2	1	7
Welders	2	1	2	1	1	7
Powdermen	1					1
Bathhouse Tender					1	1
Dummy Filler					1	1
TOTAL	97	37	44	64	79	321

NATIONALITY OF MINE EMPLOYEES

As of December 31, 1932

	Rock Springs	Reliance	Winton	Superior	Hanna	Total
Americans	225	89	125	160	116	715
American-Negroes	12			4	11	27
Armenians						
Austrians	20	34	21	74	7	156
Australians					1	1
Belgians	1	2	1			4
Bohemians						
Bulgarians			5			5
Canadians	1	1	1			3
Carniolans (Kroiners)	12		6	5		23
Chinese	1					1
Croatians	21	4	19	12		56
Dalmatians	17		1	1		19
Danes	2		2	1		5
Dutchmen						
Englishmen	33	1	12	16	39	101
Finnlanders	14	3	2	23	38	85
Frenchmen	2	1	2	1	1	7
Germans	6	1	2	11	2	22
Greeks	6	19	17	16	13	71
Hungarians	2	7	2	2		13
Indians				1		1
Irishmen	5	3		1	2	11
Italians	40	6	18	65	3	132
Japanese	2	6	1		14	23
Koreans	1					1
Lithuanians						
Mexicans	3	3	2	1		9
Montenegrins		1	1			2
Norwegians	1					1
Polanders	8			3		11
Rumanians	4					4
Russians	2	3	3	4		12
Scotsmen	23	4	9	4	7	47
Serbians (Sorvians)	5	2	1	9		17
Slovanians	58	2	3	17		80
Spaniards	1		2	2		5
Swedes	6	1	3	3	4	17
Turks						
Tyrolese	11	4	4	3		22
Welshmen	5		3	2	1	11
Total	550	197	268	446	259	1,720

EMPLOYMENT DEPARTMENT

by

H. J. Harrington, Agent

During the period covered by this report a plentiful supply of experienced mine workers, machinists, electricians, etc., was available from applications on file in the office, and, while no applications have been taken since early in the year 1931, there is now on file a considerable number of applications of very desirable workmen. A great many personal visits have been made by workman to inquire as to the possibility of obtaining employment with this company.

A great number of minors, especially High School graduates from the 1931 and 1932 classes of the Rock Springs High School, were continually looking for employment. The majority of these applicants are sons and dependents of old employees of the company and would no doubt, in most instances, make excellent apprentices for either mechanical or underground work, and would become quite valuable in the organization from a standpoint of reliability and permanency, as, having been raised and educated in this district, they are acquainted with and are apparently satisfied with living conditions, and, for this reason, it is felt they would be far more reliable than the general run of outsiders. These young men range in age from eighteen to twenty-one years, and they number, perhaps, one hundred and twenty-five in Rock Springs and the outside mining districts of the company, but, due to conditions during the past two years, it has been out of the question to bring any of them into the organization.

The intensive drive for accident-prevention and elimination of lay-offs during the past year is very favorably reflected in attendance

records for the year. These records have been unusually good in comparison with previous years, very little absenteeism being noted except for justifiable causes, and it has been found that very few workmen now absent themselves from their work on account of dissipation.

Painting, repairing and re-roofing company tenements during the past few years has had a very good effect, both from the appearance of the tenements and the satisfaction of the occupants, which tends to create a more friendly feeling amongst company employes. This is especially noticeable amongst the renters of the older tenements at Rock Springs and Superior, where the roofs were becoming unserviceable.

During the period there were 118 separations at various plants and of this number 70 left the service of their own accord. During the previous year this classification accounted for 76 separations, and, during the year 1930, a total of 239 were so classified. Discharges for various causes accounted for 25 separations, while during the previous year 13 separations were classified under this heading, while in 1930 a total of 22 was the result of discharges. Unavoidable separations, less transfers, accounted for 23 separations during the year, while the preceding year shows a total of 21 separations due to unavoidable causes, and in the year 1930 a total of 23 were so classified.

The per cent of Labor Turnover for the period was practically nil, only one machinist being hired for Winton Mines. No consideration is given transfer of workmen from one plant to another as these transfers were not to increase working forces or for replacement, but were, in all cases, made for convenience of workmen, either to improve their living

conditions or to provide them with employment following the closing down of mines or the finishing of their former working places.

The following is statement of number and location of The Union Pacific Coal Company employes who successfully passed the examination for Mine Foreman's, Fire Boss' and Shot Firer's Certificates during the year:

<u>Mining District</u>	<u>Mine Foreman</u>	<u>Fire Boss</u>	<u>Shot Firer</u>
Rock Springs	1		6
Reliance			1
Superior	1	2	23
Hanna	<u>2</u>	<u>1</u>	<u>6</u>
Total	4	3	36

A detailed statement of causes of separations follows:

STATEMENT OF SEPARATIONS

Year Ending December 31, 1932

<u>-A- Own Accord</u>	<u>Rock Springs</u>	<u>Reli- ance</u>	<u>Win- ton</u>	<u>Super- ior</u>	<u>Hanna</u>	<u>Total</u>
To return to former employment	3		3	9		15
Poor living conditions				1		1
Wants change in employment			1			1
Sickness	1			5		6
To go into business	1	2	6	1	5	15
To accept other employment	1	2	3			6
Quitting coal mining			2	9		11
To return to school	1			2		3
Sickness in family		1				1
Temporary Employment			2			2
No information	2	1	2	1		6
Family disagreement				1		1
Slack work				2		2
Total	9	6	19	31	5	70
<u>-B- Discharged</u>						
Poor Attendance	2	2	1	7	1	13
Incompetence				1		1
Infraction of Company rules			1	3		4
Law infraction			1	3		4
Physical condition				1	2	3
Total	2	2	3	15	3	25
<u>-C- Unavoidable</u>						
Transferred	7	14	2			23
Fatally injured in mine accident	1					1
Retired	6				3	9
Death	6	2	1	2	2	13
Total	20	16	3	2	5	46
TOTAL, ALL CAUSES	31	24	25	48	13	141

THE UNION PACIFIC COAL COMPANY
 STATEMENT OF ACCOUNT WITH STATE OF WYOMING
 WORKMEN'S COMPENSATION DEPARTMENT
 Year Ending December 31, 1932

Receipts		
Balance in fund January 1, 1932		\$ 54,211.73
Payments to fund:		
January	\$ 3,048.54	
February	3,318.62	
March	3,104.52	
April	2,817.00	
May	2,722.25	
June		
July		
August	864.25	
September	2,429.38	
October	3,294.57	
November	727.41	
December		22,326.54
Total		\$ 76,538.27
Disbursements		
Payments from fund:		
January	\$ 7,690.74	
February	1,837.39	
March	7,992.03	
April	1,957.59	
May	2,630.20	
June	544.96	
July	3,297.83	
August	2,641.34	
September	1,224.46	
October	2,908.74	
November	1,109.91	
December	1,383.53	\$ 35,218.72
Balance in fund January 1, 1933		\$ 41,319.55

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**STATEMENT SHOWING HAZARDOUS, NON-HAZARDOUS AND TOTAL PAY ROLLS AND PAYMENTS
MADE TO THE STATE OF WYOMING, FOR WORKMEN'S COMPENSATION, CATASTROPHE INSURANCE AND POLICING
DURING THE YEAR ENDING DECEMBER 31, 1932**

Month	PAY ROLLS			PAYMENTS FOR				
	Total Pay Rolls	Non- Hazardous	Hazardous	Workmen's Compensation	Catastrophe Insurance	Policing	Total	
January	\$ 229,017.01	\$ 22,477.31	\$ 206,539.70	\$ 3,048.54	\$ 512.36	\$ 140.00	\$ 3,700.90	
February	241,542.83	20,301.30	221,241.53	3,318.62	549.50	140.00	4,008.12	
March	227,122.33	20,154.62	206,967.71	3,104.52	513.60	140.00	3,758.12	
April	207,941.02	20,140.84	187,800.18	2,817.00	465.33	120.00	3,402.33	
May	216,472.55	20,161.25	196,311.30	2,722.25	486.57	120.00	3,328.82	
June	193,763.82	20,361.44	173,402.38		429.25	120.00	549.25	
July	142,473.36	20,123.64	122,349.72		301.96	100.00	401.96	
August	193,121.72	20,226.61	172,895.11	864.25	428.26	60.00	1,352.51	
September - X	198,282.96	20,367.33	177,915.63	2,429.38	441.05	120.00	2,990.43	
October - X	239,507.61	19,869.42	219,638.19	3,294.57	545.29	140.00	3,979.86	
November	197,139.41	19,209.91	177,929.50	727.41	441.00	120.00	1,288.41	
December	188,333.72	19,309.83	169,023.89		418.67	120.00	538.67	
Total	\$2,474,718.34	\$242,703.50	\$2,232,014.84	\$22,326.54	\$5,532.84	\$1,440.00	\$29,299.38	

Total Tons Mined	2,045,270.00
Average Cost Per Ton for Workmen's Compensation	\$.0109
" " " Catastrophe Insurance	.0027
" " " Policing Charges	.0007
Total	\$.0143

X - Includes \$123.75 (Sept.) and \$247.50 (Oct.) paid by Audited Vouchers.

**COST OF WORKMEN'S COMPENSATION
TO**

**COAL COMPANIES IN WYOMING
FROM DATE OF ACT TO DECEMBER 31, 1932**

Period	THE UNION PACIFIC COAL COMPANY				ALL COMPANIES OTHER THAN THE UNION PACIFIC COAL COMPANY				ALL WYOMING COAL COMPANIES			
	Tons Coal	Assessments	Cost Per Ton		Tons Coal	Assessments	Cost Per Ton		Tons Coal	Assessments	Cost Per Ton	
4/1/15 to 12/31/15	2,535,135	43,175.52	\$.0170		2,307,128	32,309.57	\$.0140		4,842,263	75,485.09	\$.0156	
Year 1916	3,481,335	54,249.91	.0156		4,215,011	94,093.99	.0223		7,696,346	148,343.90	.0193	
Year 1917	3,283,096	17,346.73	.0053		5,506,418	57,227.12	.0104		8,789,514	74,573.85	.0085	
Year 1918	3,384,069	28,615.69	.0085		6,033,200	74,653.29	.0124		9,417,269	103,268.98	.0110	
Year 1919	2,321,139	13,346.84	.0058		5,844,870	51,472.16	.0088		8,166,009	64,819.00	.0079	
Year 1920	3,069,379	82,367.38	.0268		6,510,895	128,213.84	.0197		9,580,274	210,581.22	.0220	
Year 1921	2,984,534	51,621.76	.0173		4,318,945	74,610.98	.0173		7,303,479	126,232.74	.0173	
Year 1922	2,253,774	58,833.45	.0261		3,722,700	58,202.78	.0156		5,976,474	117,036.23	.0196	
Year 1923	3,241,105	59,091.52	.0182		4,346,571	93,066.83	.0214		7,587,676	152,158.35	.0201	
Year 1924	2,821,678	38,176.61	.0135		3,892,876	80,757.27	.0207		6,714,554	118,933.88	.0177	
Year 1925	2,779,065	55,222.75	.0199		3,778,511	119,364.96	.0316		6,557,576	174,587.71	.0266	
Year 1926	2,776,245	61,924.97	.0223		3,719,570	106,677.51	.0287		6,495,815	168,602.48	.0260	
Year 1927	2,750,430	40,323.61	.0147		3,988,131	102,795.30	.0258		6,738,561	143,118.91	.0212	
Year 1928	2,927,390	40,657.34	.0139		3,625,784	119,733.37	.0330		6,553,174	160,390.71	.0246	
Year 1929	3,060,632	47,063.33	.0154		3,639,147	91,738.72	.0252		6,699,779	138,802.05	.0207	
Year 1930	2,897,653	56,203.26	.0194		3,173,116	99,150.89	.0312		6,070,769	155,354.15	.0256	
Year 1931	2,453,527	43,371.91	.0177		2,546,839	69,638.72	.0273		5,000,366	113,010.63	.0226	
Year 1932	2,045,270	22,326.54	.0109		2,123,149	49,988.57	.0235		4,168,419	72,315.11	.0173	
TOTAL	51,065,456	6813,919.12	\$.0159		73,292,861	81,503,695.87	\$.0205		124,358,317	22,317,614.99	\$.0186	

Notes:

1. Catastrophe Insurance Premiums and Service and Policing charges excluded.
2. Superior Coal Company included with The Union Pacific Coal Company, years 1915 and 1916.
3. Figures for "All Wyoming Coal Companies" taken from State reports.
4. The Union Pacific Coal Company produced 49% of tonnage and paid 30.9% of premium in 1932.
5. 1932 figures subject to revision.

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COST OF CATASTROPHE INSURANCE PREMIUMS
AND SERVICE AND POLICING CHARGES TO
THE UNION PACIFIC COAL COMPANY
FROM DATE OF PROVISIONS CREATING THESE FUNDS TO DECEMBER 31, 1932

Year	Tons Coal	Catastrophe Insurance	Cost Per Ton	Service & Policing	Cost Per Ton	Total	Cost Per Ton
1925	2,779,065	\$ 9,362.08	\$.0034	\$	\$	\$ 9,362.08	\$.0034
1926	2,776,245	11,727.59	.0042			11,727.59	.0042
1927	2,750,430	10,492.69	.0038	1,725.00	.0006	12,217.69	.0044
1928	2,927,390	10,688.02	.0036	2,300.00	.0008	12,988.02	.0044
1929	3,060,632	9,983.05	.0033	2,250.00	.0007	12,233.05	.0040
1930	2,897,653	9,325.29	.0032	2,250.00	.0008	11,575.29	.0040
1931	2,453,527	7,463.43	.0030	1,770.00	.0007	9,233.43	.0037
1932	2,045,270	5,532.84	.0027	1,440.00	.0007	6,972.84	.0034
TOTAL	21,690,212	\$74,574.99	\$.0034	\$11,735.00	\$.0005	\$86,309.99	\$.0040

COMPENSATION DEPARTMENT

by

H. J. Harrington, Supervisor

During the year 1932 all claims for compensation were settled by joint stipulation, except that of Y. Tanaka, he claiming to have been injured while employed in Hanna No. 2 Mine on the 30th day of September, 1931. In this case Employer's Report of Accident was filed with the Clerk of the District Court of Carbon County, at Rawlins, Wyoming, on October 30th, 1931. In this report, the Company disputed the workman's right to compensation for the reason that workman had failed to report his injury to Mine Foreman Chadwick, although the Mine Foreman had been in the workman's working place between the hours of 12:00 o'clock noon and 1:00 P.M. on the 30th day of September, 1931, the date upon which workman claimed he had sustained the injury, and Shot Firer Charles Meller had also been in the place at about 12:45 P.M., and was not informed that workman had received any injury. Later in the day, at about 4:00 P.M., workman called at the Mine Foreman's office for his pay roll voucher and did not then make any report of having been injured and the Mine Foreman could not notice anything unusual about the workman's appearance. Mine Foreman Chadwick was not advised as to workman's having been injured until workman reported to him on the 2nd day of October, 1931, wearing a surgical dressing on the injured eye, at which time he informed the Mine Foreman of alleged injury of September 30th, 1931. He stated that the accident had occurred at about 1:00 P.M., and that he did not think the injury would amount to anything at the time he left the mine at 2:00 P.M. on September 30th, 1931.

Workman did not report to Surgeon McDermott for treatment until the morning of October 2nd, 1931, at which time the surgeon found a corneal ulcer of the left eye and ordered the workman to report to Drs. Strader and Beck at Cheyenne, Wyoming, for treatment. Under treatment of these doctors the eye began to improve and workman was released from the hospital to live with friends in Cheyenne while continuing treatment with the doctors. Later, however, the infection became active again, causing sloughing of the entire cornea, which produced total loss of vision of the left eye.

On workman's petition, filed February 5th, 1932, the Court made an order setting the case for hearing on the 15th day of February, 1932, at which time the case was heard in the District Court of Carbon County, Wyoming, by District Judge V. J. Tidball. The workman was represented by Attorney A. R. McMicken and the Company by Attorney N. R. Greenfield. Workman had as witnesses his partners Takeda and Okamoto, and Dr. B. V. McDermott, all of Hanna. Mine Foreman Chadwick and Shot Firer Charles Heller were witnesses for the Company. After hearing the testimony of these witnesses the Court entered judgment in favor of the workman in an amount of \$1,950.00. Of this amount \$150.00 was for temporary total disability covering the period September 30th, 1931 to December 30th, 1931, and \$1,800.00 for permanent partial disability for the loss of the sight of the left eye.

Of the two fatal cases carried over from the year 1931, that of William Pato, fatally injured in Rock Springs No. 8 Mine on October 13th, 1931, was dismissed on June 17th, 1932, on account of limitation running

against any claimant. On November 4th, 1931, an award was made the Rogan Mortuary, of Rock Springs, Wyoming, in an amount of \$150.00 for burial expenses.

Non-resident alien dependents of Frank Menghini, who was fatally injured in Superior Mine "B" on the 27th day of November, 1931, made satisfactory proof of dependency and a stipulation for compensation in an amount of \$666.66 for the widow and \$319.22 for a daughter, was filed in District Court of Sweetwater County, Wyoming, on the 27th day of August, 1932, and award in full of the above amounts was entered thereon on August 31st, 1932. The total amount awarded in this case was \$1,135.88, which included \$150.00 to Rogan Mortuary for burial expense.

Surviving parent of Joe Marushack, who was fatally injured in Rock Springs No. 8 Mine on May 26th, 1932, was awarded \$1,500.00, the amount provided for compensation for surviving parent or parents and in addition \$150.00 for burial expense which had been defrayed by the surviving parent.

The above is the only fatal injury which occurred in the Company's mines during the year 1932 and no cases involving settlement of fatal injury were carried over to 1933.

Considerable discussion has arisen over the adoption of the method recommended by the American Medical Association for computing compensation for eye injuries in their report of May 26th, 1925, and while the Company encountered some opposition to the use of this method, it has, so far, been successful in having workmen accept settlement based on this method of computation.

District Judges, Clerks of Court and State Treasurer have been very prompt in the matter of handling compensation claims and payments during the year, resulting in the workmen receiving compensation due them promptly.

STATEMENT OF PERSONAL INJURIES, DAYS LOST, HOURS EXPOSURE,
FREQUENCY RATE AND SEVERITY RATE
FOR YEAR ENDING DECEMBER 31, 1932

Location	Accidents			Days Lost		Hours Exposure	(A) Frequency Rate	(B) Severity Rate
	No Lost- Time	Lost- Time	Total					
	Actual	Weighted						
Rock Springs								
Outside	3	3	6	42	42	156,248	19.200	.269
No. 4 Mine	15	11	26	6,762	12,690	259,448	42.397	48.912
No. 8 Mine	30	13	43	6,839	6,839	345,688	37.606	19.784
Total	48	27	75	13,643	19,571	761,384	35.461	25.705
Reliance								
Outside	12	2	14	67	614	71,088	28.134	8.637
No. 1 Mine	39	6	45	368	368	220,576	27.201	1.668
Total	51	8	59	435	982	291,664	27.429	3.367
Winton								
Outside	4	1	5	44	600	89,400	11.185	6.711
No. 1 Mine	19	15	34	5,465	8,299	329,688	45.498	25.172
Total	23	16	39	5,509	8,899	419,088	36.178	21.234
Superior								
Outside	16	1	17	74	74	132,232	7.562	.560
"B" Mine	10	1	11	46	46	172,512	5.797	.267
"C" Mine	15	1	16	46	46	167,920	5.955	.274
"E" Mine	18	6	24	3,229	4,275	187,736	31.960	22.771
Total	59	9	68	3,395	4,441	660,400	13.628	6.725
Hanna								
Outside	33	1	34	4	4	169,880	5.886	.024
No. 2 Mine	24	7	31	176	958	75,624	92.563	12.668
No. 4 Mine	40	11	51	252	434	210,592	52.234	2.061
No. 6 Mine	3	2	5	6	6	15,448	129.467	.388
Total	100	21	121	438	1,402	471,544	44.535	2.973
TOTAL ALL MINES	281	81	362	23,420	35,295	2,604,080	31.105	13.554
ALL MINES, 1931	440	392	832		52,275	3,169,584	123.672	16.493

- (A) - Accident-frequency rate indicates number of lost-time accidents per million man hours of exposure.
- (B) - Accident-severity rate indicates number of days lost per thousand man hours of exposure.

PRODUCTION, WORKING TIME, MINE COST, GENERAL EXPENSES AND TAXES AND TOTAL COST BY MONTHS FOR THE YEAR 1932

	January	February	March	April	May	June	July	August	September	October	November	December	Year
Number of Mines Working	10	10	10	10	10	10	10	10	10	10	10	10	10
DAYS WORKED													
Rock Springs No. 4	10	12	9.75	9.50	10.50	9.50	5	11	12	16.25	14	13	132.50
8	15	13	13	12	11	12	5	12	12	17	15	13	150
Reliance	13	14	11	10	12	7	10	10	12	17	10	11	137
Winton	12	16	12	10	11	10	7	10	11	15	11	10	135
Superior "B"	11	14	11	10	10	7	8	11	9	14	9	10	124
"C"	11	14	11	10	10	7	7	11	10	14	10	10	125
"E"	10	14	10.50	9	9.50	6	8	11	9	14	9	10	120
Hanna No. 2	12	12	12.75	9	12	10	7	13	13	18	13	11	142.75
4	17	17	17	13	16	17	8	18	16	21	23	19	202
6	8	14.50	18	14	18	18	8	19	21	25	20	10	193.50
Total Mine Days Worked	119	140.50	126	106.50	120	103.50	73	126	125	171.25	134	117	1,461.75
Average Mine Days Worked	11.9	14	12.6	10.7	12.0	10.4	7.3	12.6	12.5	17.1	13.4	11.7	146.2
Working Days in Month	25	25	27	25	25	25 x	25	27	25	26	24	26	305
Per Cent Time Worked	47.6	56.2	46.7	42.6	48.0	41.4	29.2	46.7	50.0	65.9	55.8	45.0	47.9
Total Production, Tons	165,772.75	189,838.95	172,117.85	153,702.60	159,645.80	136,718.85	102,648.55	168,859.80	180,963.70	241,528.65	195,086.85	178,385.65	2,045,270.00
Total Mine Cost Per Ton	\$1.728	\$1.623	\$1.653	\$1.704	\$1.687	\$1.763	\$1.720	\$1.506	\$1.462	\$1.332	\$1.353	\$1.405	\$1.556
Production Cost Per Ton													
Coal Sold	1.733	1.625	1.653	1.707	1.687	1.765	1.724	1.484	1.462	1.328	1.353	1.406	1.555
General Expenses & Taxes	.320	.276	.293	.308	.262	.300	.316	.088	.090	.047	.051	.074	.187
Total Cost Coal Sold	2.053	1.901	1.946	2.015	1.949	2.065	2.040	1.572	1.552	1.375	1.404	1.480	1.742

x - June 11th, "Old Timers' Day", was not considered a "possible working day" since it was a holiday for employees of The Union Pacific Coal Company

MISCELLANEOUS INFORMATION

ALL MINING DISTRICTS

Year Ending December 31, 1932

	Rock Springs	Reliance	Winton	Superior	Hanna	Total
Tons recovered by miners	85,934.25	51,289.70	4,896.20	35,206.25	106,386.55	283,712.95
Tons recovered by loaders	65,421.00	13,078.60		16,014.05	3,357.95x	97,871.60
Tons recovered by operators Mech. ldrs. only	390,268.50	182,901.15	299,532.25	477,252.35	281,837.55	1,631,791.80
Additional tons recovered by Company men	4,650.25	3,122.65	4,766.55	6,554.70	12,799.50	31,893.65
Total tons recovered	546,274.00	250,392.10	309,195.00	535,027.35	404,381.55	2,045,270.00
Days mines worked	282.50	137	135	369	538.25	1,461.75
Man shifts - miners	8,157	4,690	411	3,598	7,049	23,905
Man shifts - loaders	6,248	1,563		1,256		9,067
Man shifts - operators Mech. ldrs. only	25,840	11,086	21,369	34,187	11,374.50	103,856.50
Man shifts - all employees	95,173	36,458	52,386	82,942	58,943	325,902
Tons per day for each miner	10.5	10.9	11.9	9.8	15.1	11.8
Tons per day for each loader	10.5	8.4		12.7		10.8
Tons per day for each operator Mech. ldrs.	15.1	16.5	14.0	14.0	24.8	15.7
Tons per day for all employees	5.7	6.9	5.9	6.5	6.9	6.3
Total fatal injuries	1					1
Total non-fatal compensated injuries	22	5	13XX	9	10	59
Tons of coal for each fatal injury	546,274.00					2,045,270.00
Tons of coal for each non-fatal compensated injury	24,830.64	50,078.42	23,784.23	59,447.48	40,438.16	34,665.59

X - The 3,357.95 tons shown as coal recovered by "Loaders" at Hanna was machine-cut coal loaded in November and December by men paid on day rate basis.

XX - Includes man shifts of "all other inside employees" and "all outside employees."

XXX - Does not include injury incurred May 10, 1932, by Martin Reiva, employee of Store Department, on account of which Mr. Reiva was paid \$150.00 compensation.

POWER EQUIPMENT ON HAND
All Mining Districts
Year Ending December 31, 1932

Equipment	Rock Springs	Reliance	Vinton	Superior	Hanna	Total
Hoisting Engines (Steam and Electric)						
Car Pullers	27	14	24	33	15	113
Boilers	2	1		2	3	8
Pumps	12			9	10	31
Mining Machines, Electric	30	15	22	22	23	112
Cutting and Shearing Machines	36	15	26	40	7	124
Locomotives	23	13	11	25	1	1
Generator Sets, Including Lamp Charging Sets	9	9	6	17	9	81
Welding Motor Generator Sets	2	1	1	2	8	49
Turbine Power Units	4				1	7
Rock Dust Distributors	1	1	1	1	2	6
Wheel Shovels					1	5
Joy Loaders	3	1	4		1	4
Scraper Loaders	11		2		6	12
Richhoff Shaking Conveyors	12	9	3	16	1	7
Cosco Shaking Conveyors			19	17	2	32
Vulcan Shaking Conveyors				2		57
Button Conveyor (Homemade)					1	2
Jeffrey Pit Car Loaders	14			1		1
Northern Pit Car Loaders	12	2		1		1
Red Devil Pit Car Loaders				6		20
Butler Shovels	51	13	32	5	2	20
Drills, Electric, (Coal)	1		1			2
Drills, Keystone						172
Drills, Diamond						1
Drills, Galyx	4	1				1
Portable Electric Drills, Tools	2	2	2			1
Box Car Loaders	4	2	1			1
Compressors	4	2	4			29
Chuck Breakers	1					8
Painting Machines	1					19
Crushers (Coal)	2	1				4
Magnetic Pulleys	2	1				3
Stopers						7
Coal Picks						7
Jack Hammers and Drifters						1
Electric Hand Saws - Portable	3	2	2	1		13
Cement Guns	2		1	1		8
Cement Mixers	2					2
Fans, Main	4	3	1	1		2
Fans, Elevator	51	15	32	52	7	161
Lathes	5	1	2	2	4	14
Planers	1	1	1	1	1	4
Drill Presses	3	1	1	1	3	10
Shapers	1	1	1	1		4
Milling Machines	1	1				2
Bolt Cutters	1	2				22
Pipe Machines	2	1				3
Power Hack Saws	2	1				5
Power Ratches	1					2
Emery Wheel Stands	3	2	2	2		11
Presses	1					2
100-ton Jacks	1					1
Bit Sharpeners, Sullivan	1					1
Power Hammers	1					1
Acetylene Generators	1	2	2	3	2	10
Armature Machines	1	1	1	1		5
Benders	3	1				1
Cable Vulcanizers	1	1	1			1
Thawers, Electric	1	1	1			1
Band Saws	1	1				1
Jointers	1					1
Saw Tables	1					1
Wood Lathes	1					1
Prop Saws	1					1
Grid Welding Set	2	1				1

COLLECTIONS FROM EMPLOYEES

IN FAVOR OF

UNITED MINE WORKERS OF AMERICA

ALL MINING DISTRICTS

Year Ending December 31, 1932

Location	Local No.	Collections			Average Number Union Men	Average Per Man	
		Check Weighman	Dues, Assessments, etc.	Initiations		Year	Month
Rock Springs No. 4 & Outside	2309	\$1,199.83	\$10,146.94	\$ 20.00	274.5	\$41.41	\$3.45
Rock Springs No. 8	2174		8,704.83		241.9	35.98	3.00
Reliance	905	879.18	8,363.20	20.00	185.5	49.94	4.16
Winton	3830		8,980.64	40.00	240.3	37.54	3.13
Superior "B" & "E"	2616	578.75	11,151.07	40.00	261.7	44.97	3.75
Superior "C" & Outside	2328		6,029.45		163.4	36.89	3.07
Hanna	2335	1,041.14	9,636.50	5.00	242.2	44.10	3.68
Total		\$3,698.90	\$63,012.63	\$125.00	1609.5	\$41.52	\$3.46

Note: "Average Number Union Men" taken from Form 240.

STATEMENT OF HOSPITAL COMMISSIONS

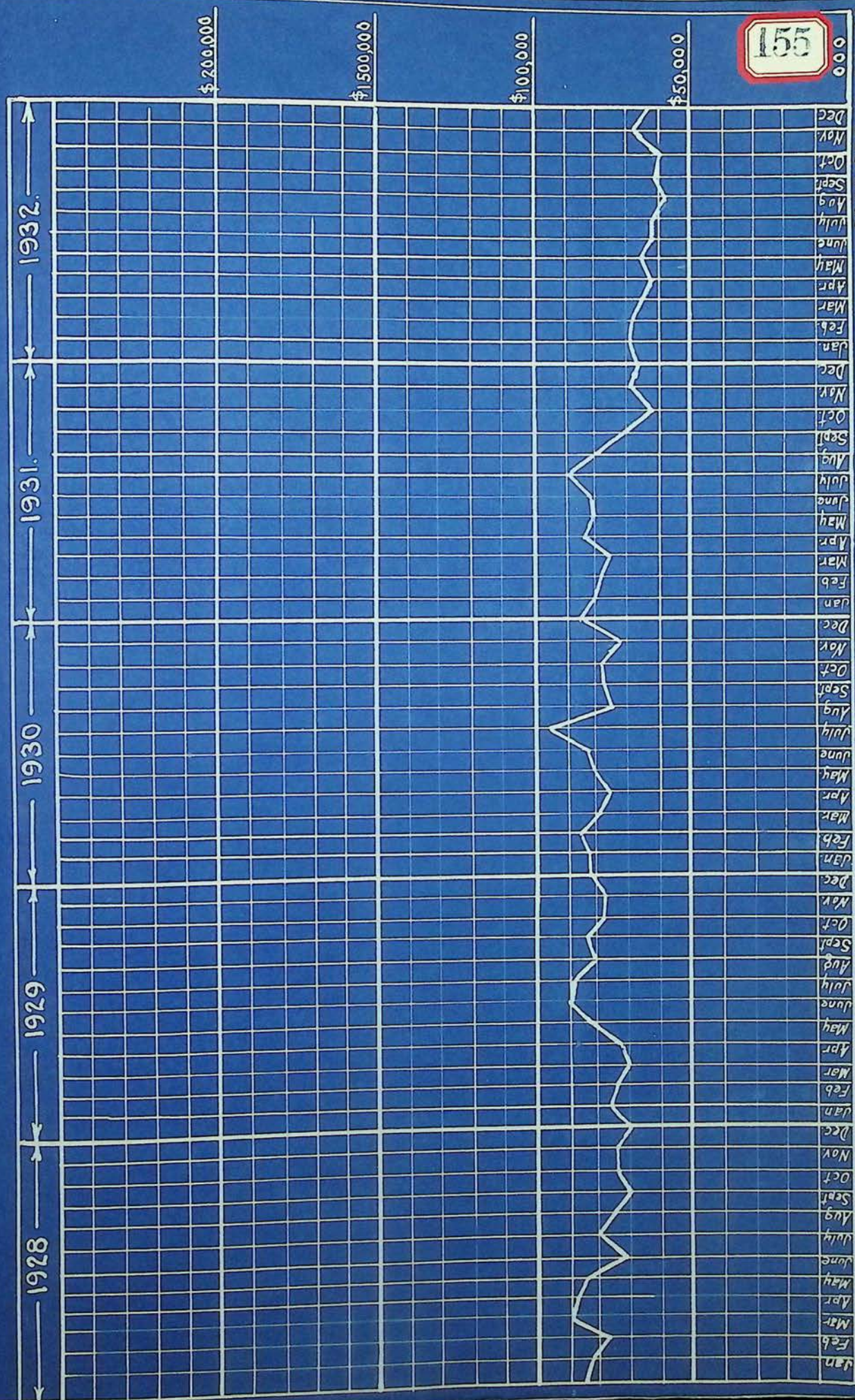
ALL MINING DISTRICTS

Year Ending December 31, 1932

Location	Receipts							Disbursements									
	Balance Jan. 1, 1932	The Union Pacific Coal Co. (x)	Mine Department Employees	Store Department Employees	Engineering Department Employees	Miscell- aneous	Total	Local Doctor	Local Doctor's Associates (xx)	Foreign Doctors	Local Hospital	Foreign Hospital	Transpor- tation	Salaries	Miscell- aneous	Balance Dec. 31, 1932	Total
Rock Springs	\$ 320.22	\$ 2,731.36	\$18,431.08	\$ 428.60	\$ 291.20	\$229.90	\$22,432.36	\$17,104.40	\$ 49.10	\$ 10.00	\$ 4,547.88	\$	\$ 57.59	\$170.00	\$ 27.74	\$ 465.65	\$ 22,432.36
Reliance	1,556.35	1,251.96	6,718.00	162.25		55.00	9,743.56	5,454.50	60.00		2,289.37		5.00	233.25	209.00	1,492.44	9,743.56
Winton	2,275.67	1,545.97	8,555.25	222.75		110.00	12,709.64	6,513.80	582.00		3,066.71	32.75		123.00	435.84	1,955.54	12,709.64
Superior	2,230.68	2,675.14	12,245.00	250.00		75.00	17,475.82	5,251.00 5,751.00	775.00		3,187.49			156.00	375.99	1,979.34	17,475.82
Hanna	3,004.70	2,021.91	9,739.77	390.90		7.75	15,165.03	11,820.14		77.00			35.15	113.00	567.21	2,552.53	15,165.03
Total	\$9,387.62	\$10,226.34	\$55,689.10	\$1,454.50	\$ 291.20	\$477.65	\$77,526.41	\$51,894.84	\$1,466.10	\$ 87.00	\$13,091.45	\$32.75	\$ 97.74	\$795.25	\$1,615.78	\$8,445.50	\$ 77,526.41

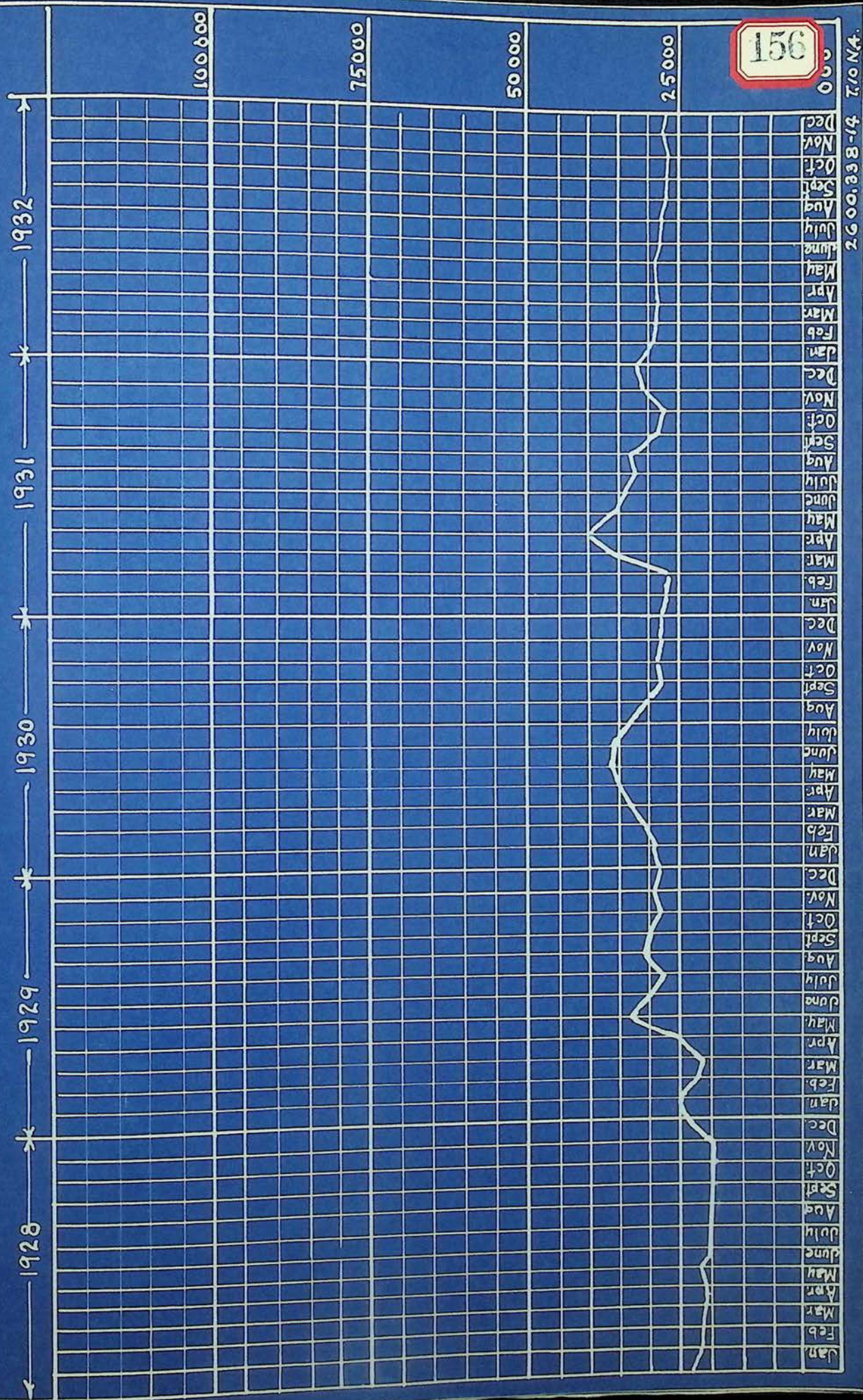
(x) Payment of $\frac{1}{2}$ ¢ per ton per agreement with United Mine Workers of America.
 (xx) Local Doctor's Associates in Rock Springs.

- ROCK SPRINGS - MINE MATERIAL- ON - HAND -



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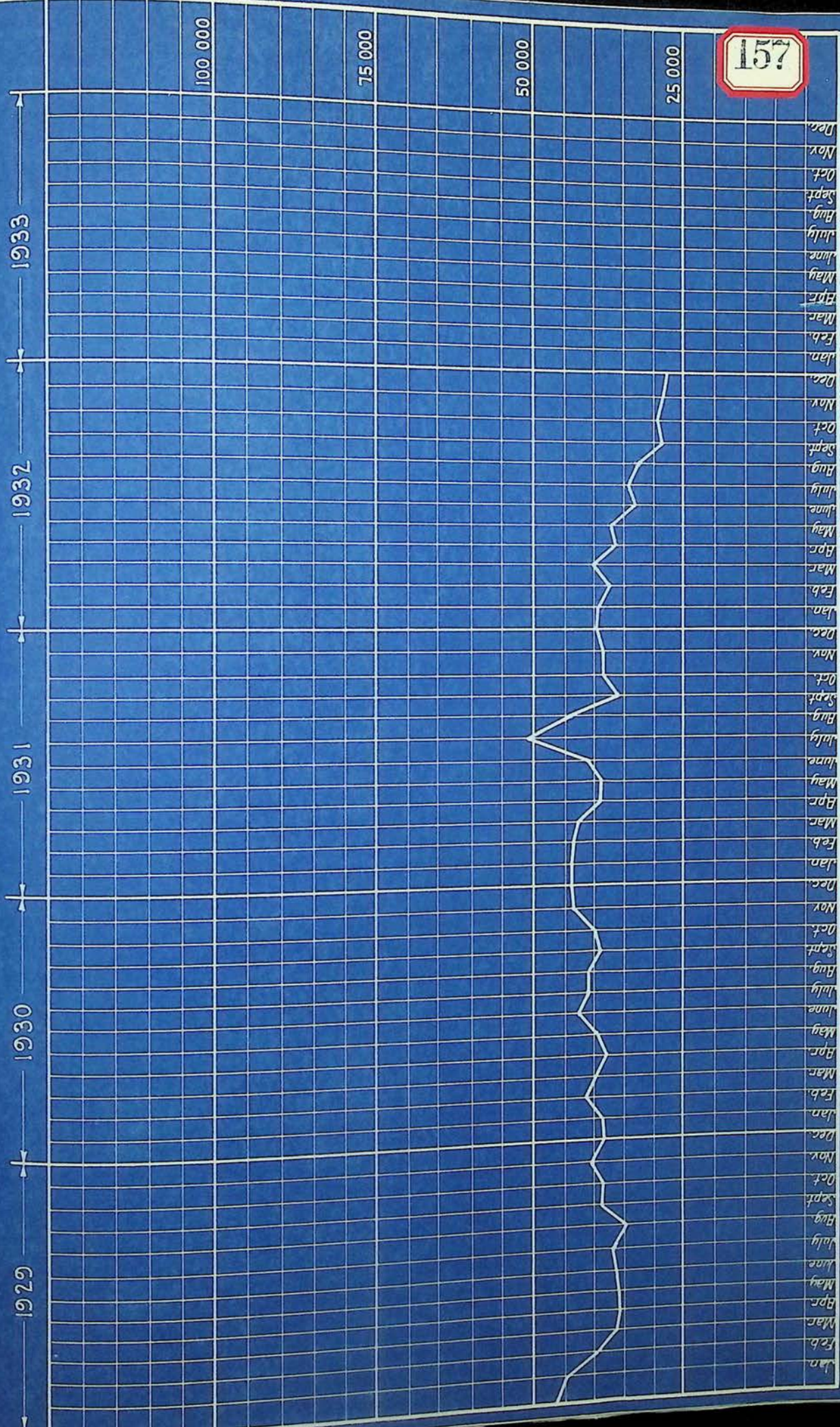
- RELIANCE - MINE MATERIAL - ON - HAND -



WINTON-MINE MATERIAL ON HAND

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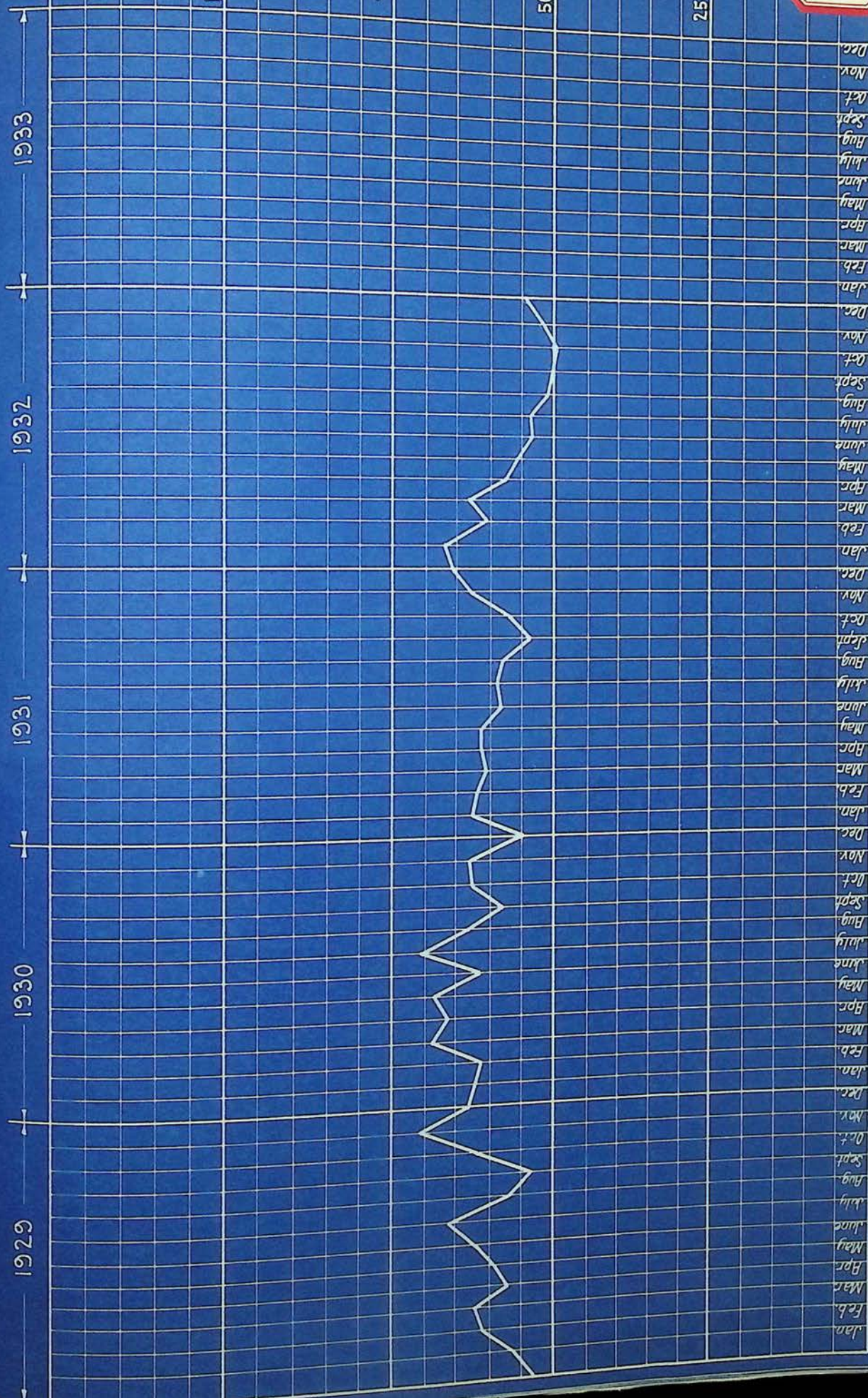
2600.341A-T10-NA



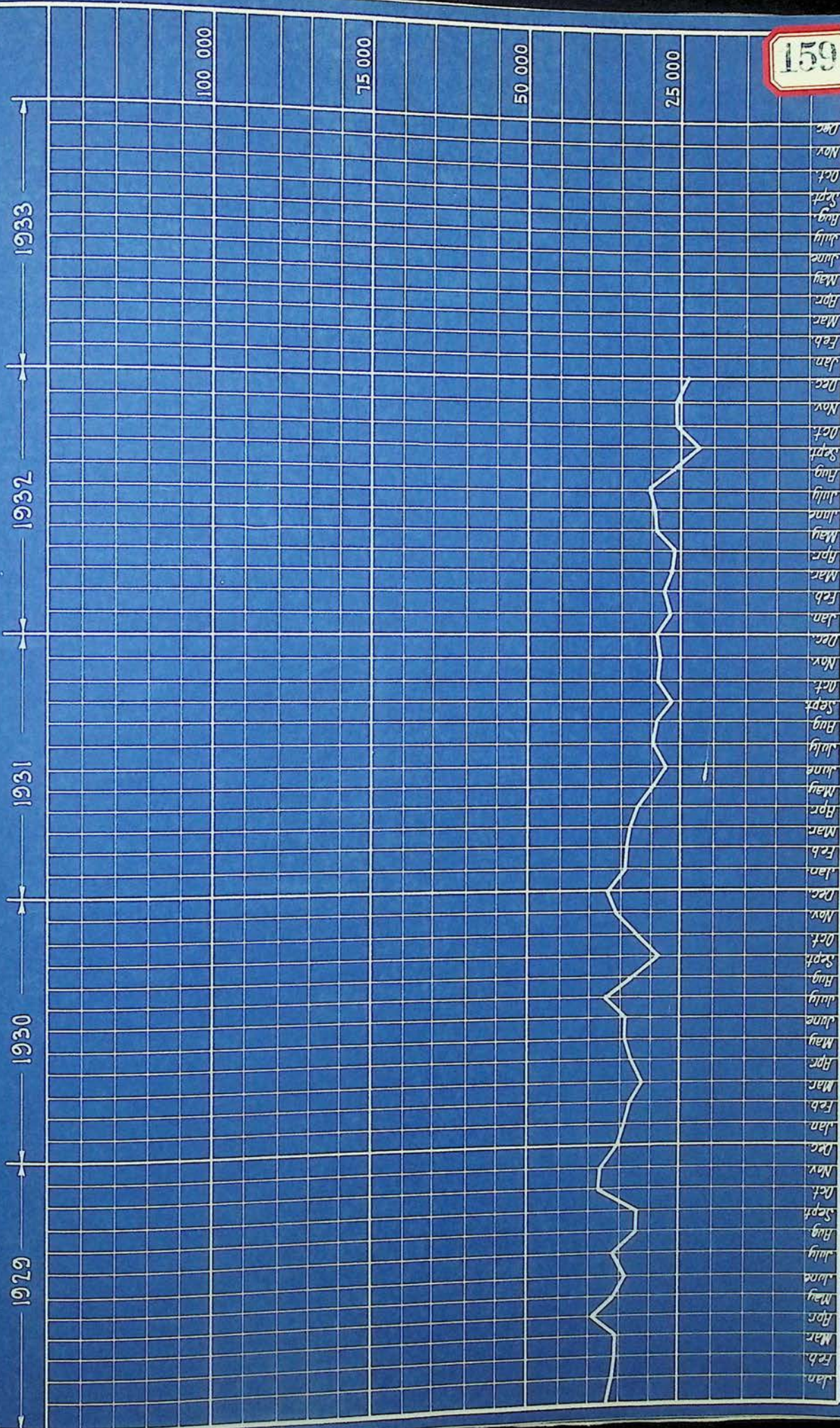
SUPERIOR-MINE MATERIAL ON HAND

158

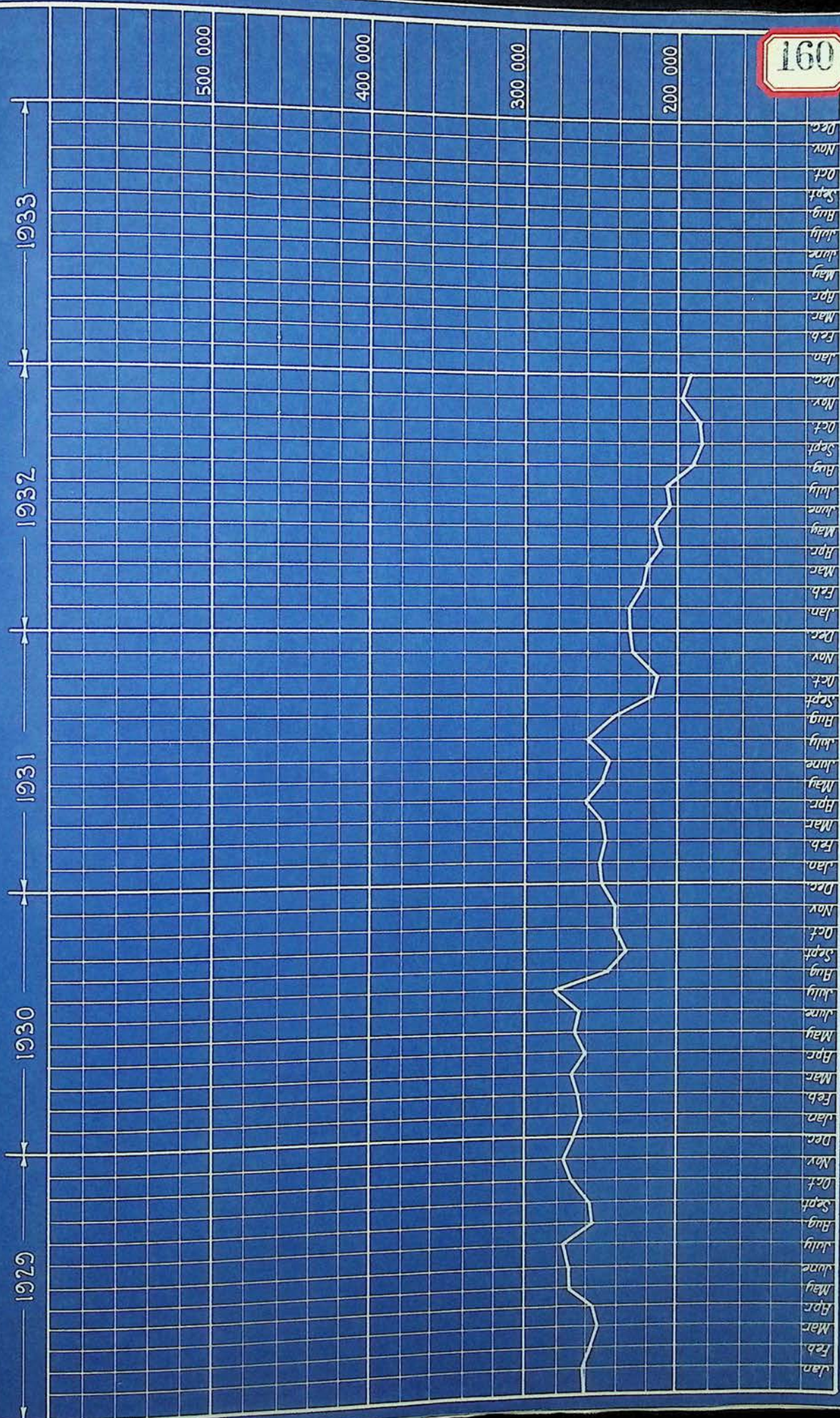
2600.3418-T.10-N4.



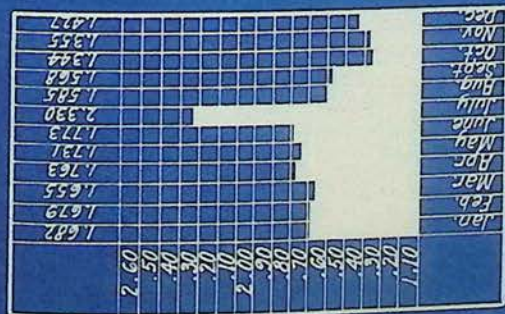
HANNA-MINE MATERIAL ON HAND



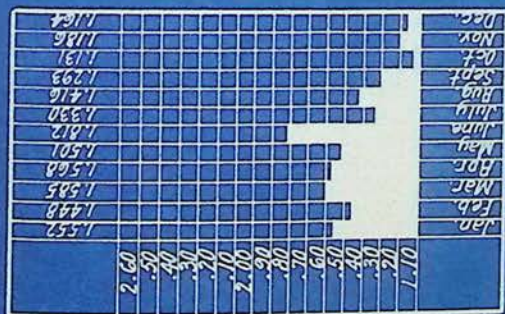
ALL MINES-MINE MATERIAL ON HAND



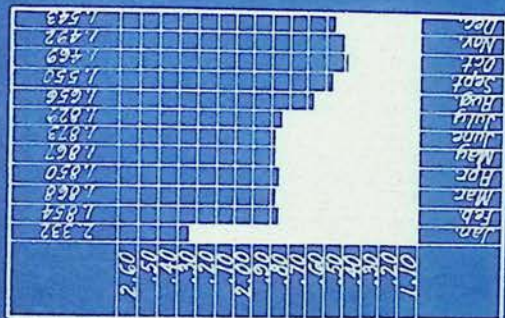
COST OF PRODUCTION OF COAL - YEAR 1932



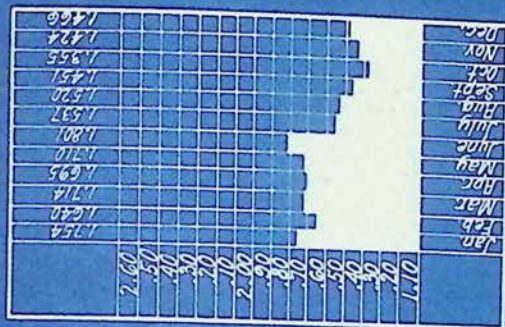
Rock Springs



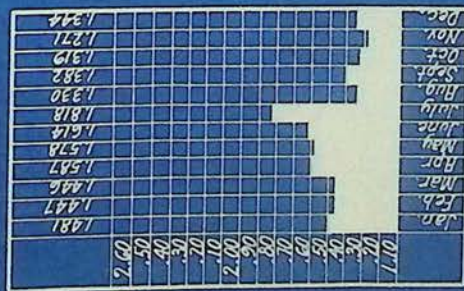
Reliance



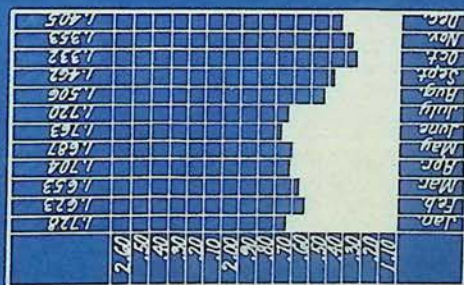
Winton



Superior



Hanna



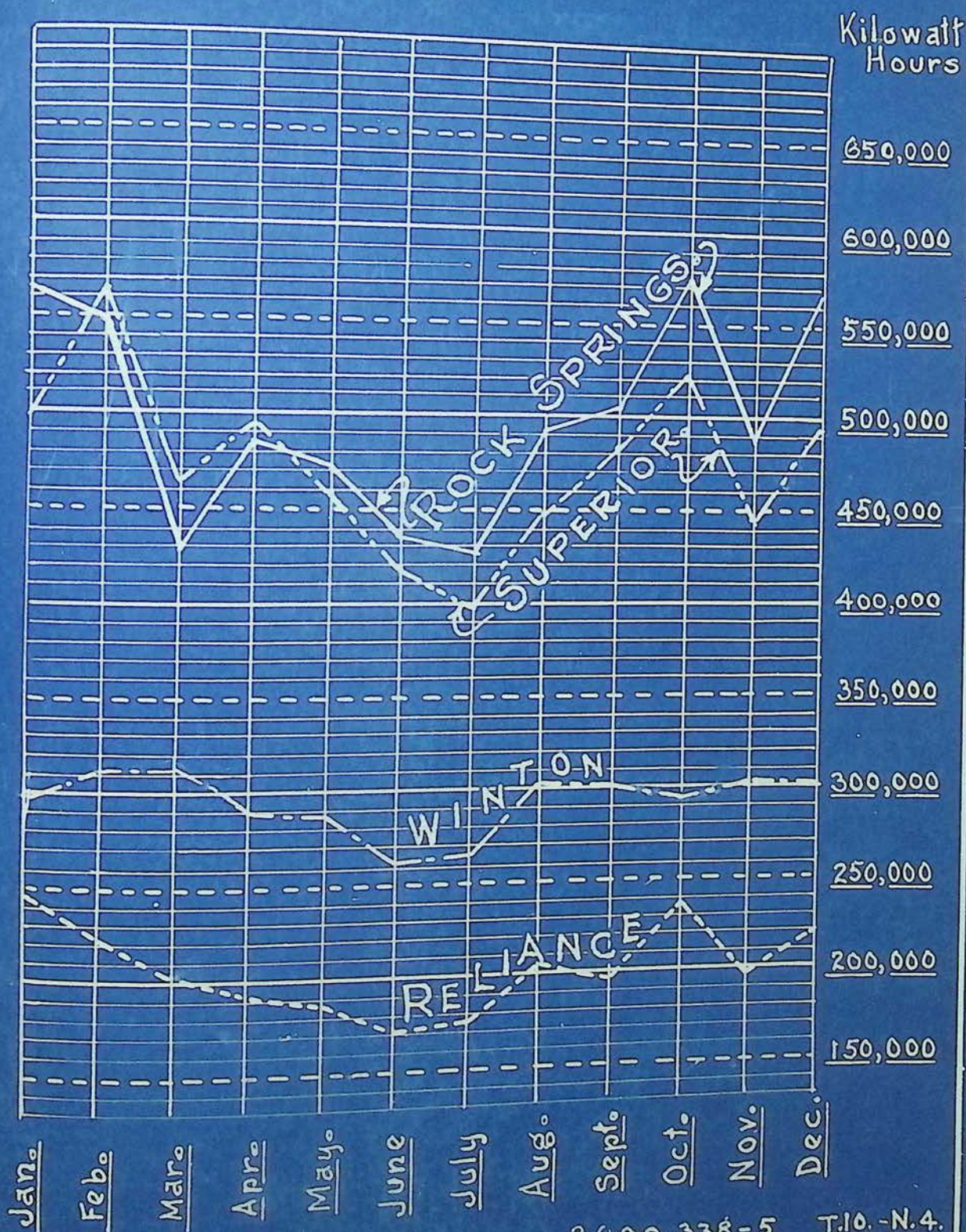
All Mines

	R.S.	Rel.	Win.	Sup.	Ha.	All Mines
Jan.	1.682	1.552	2.332	1.754	1.481	1.728
Feb.	1.679	1.448	1.854	1.640	1.447	1.623
Mar.	1.655	1.585	1.868	1.714	1.446	1.653
Apr.	1.63	1.560	1.850	1.695	1.587	1.704
May	1.731	1.501	1.867	1.710	1.578	1.687
June	1.773	1.812	1.873	1.801	1.674	1.763
July	2.330	1.330	1.879	1.537	1.818	1.720
Aug.	1.585	1.416	1.656	1.570	1.330	1.506
Sept.	1.568	1.293	1.550	1.451	1.382	1.462
Oct.	1.344	1.131	1.469	1.355	1.319	1.332
Nov.	1.355	1.186	1.492	1.474	1.271	1.355
Dec.	1.477	1.164	1.543	1.466	1.344	1.405
Aver.	1.600	1.379	1.743	1.574	1.441	1.556

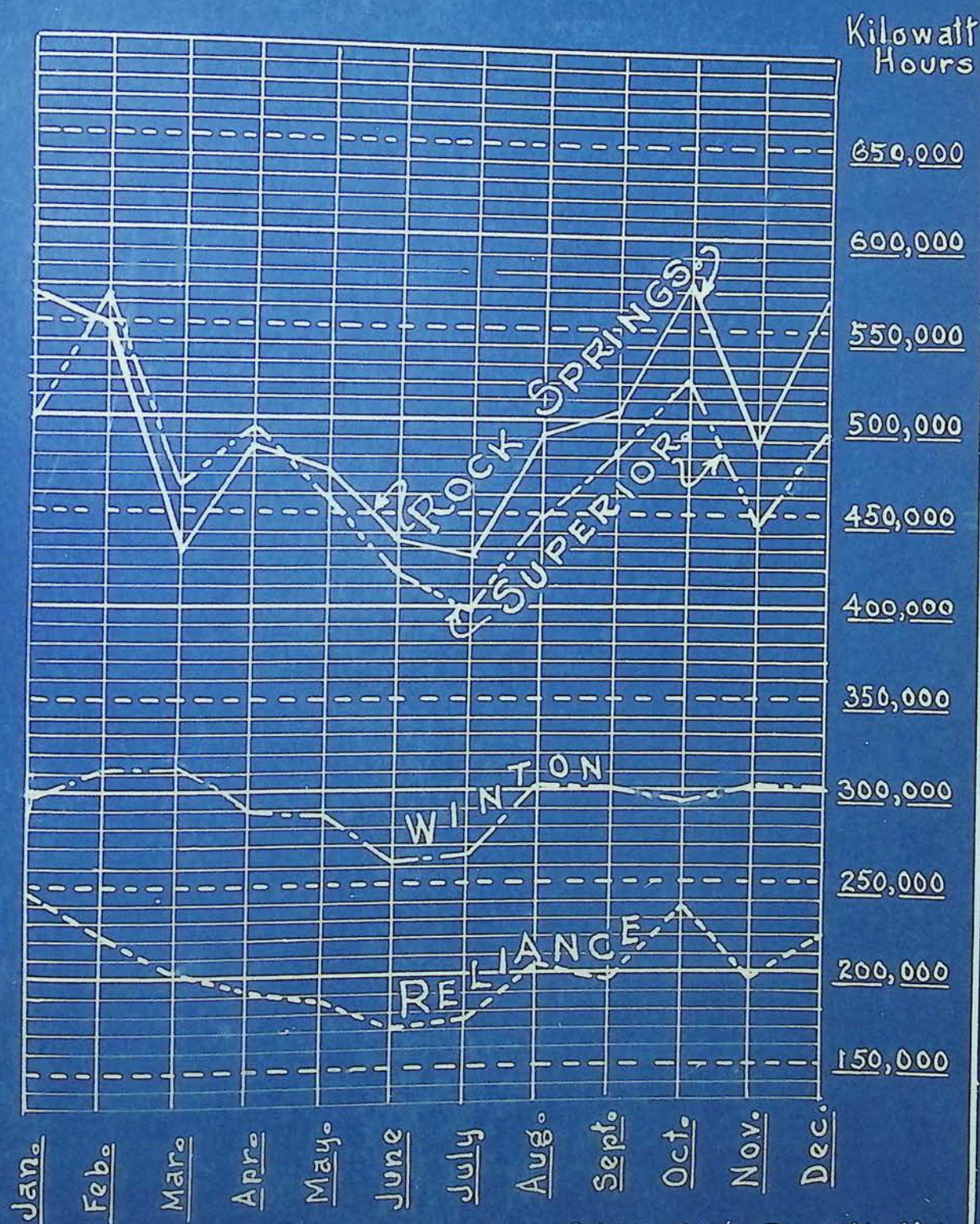
Includes depreciation, depletion and royalty.

KILOWATT HOURS CONSUMED BY THE U.P. COAL CO. MINES 1932

162

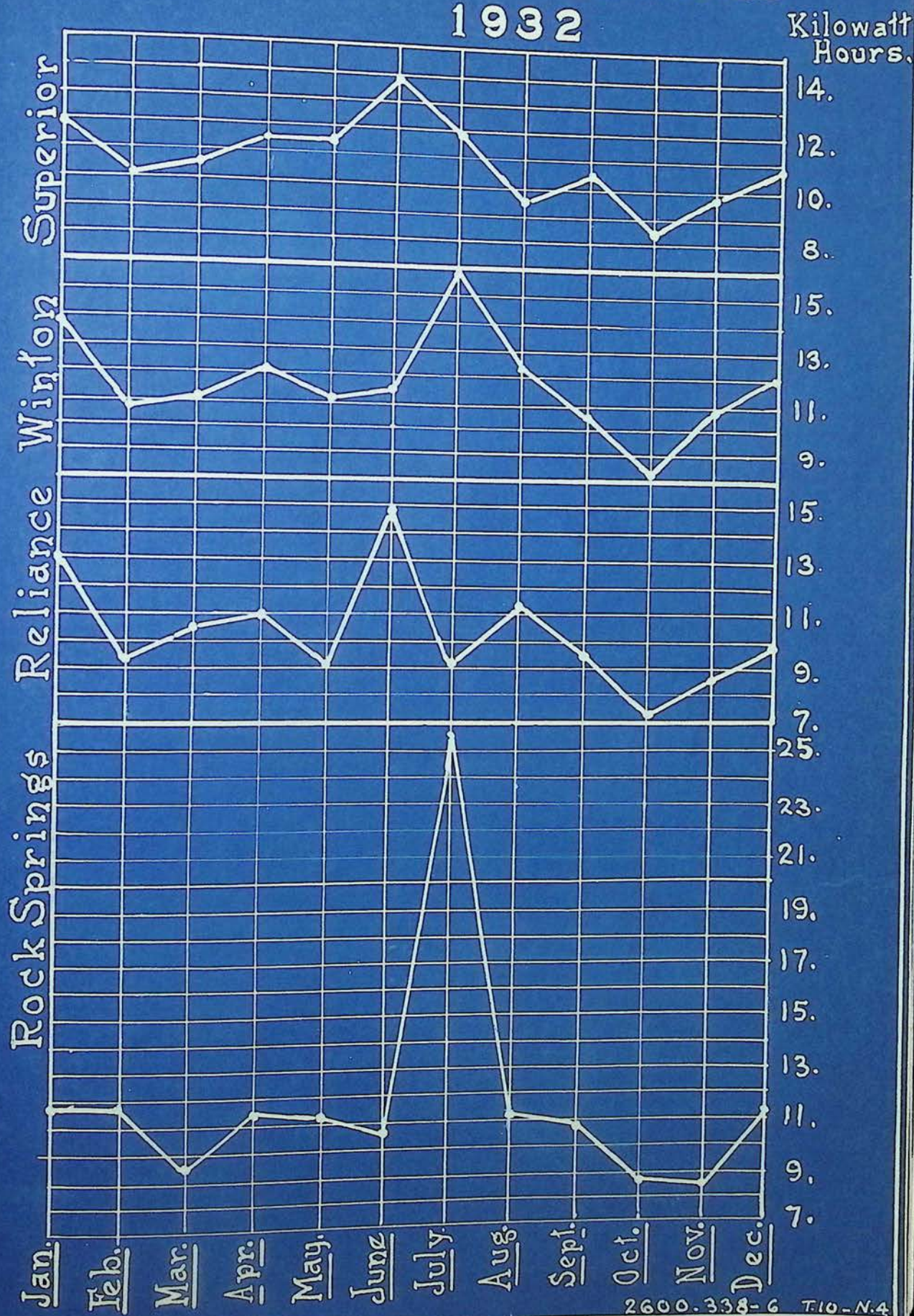


KILOWATT HOURS CONSUMED BY THE U.P. COAL CO. MINES 1932



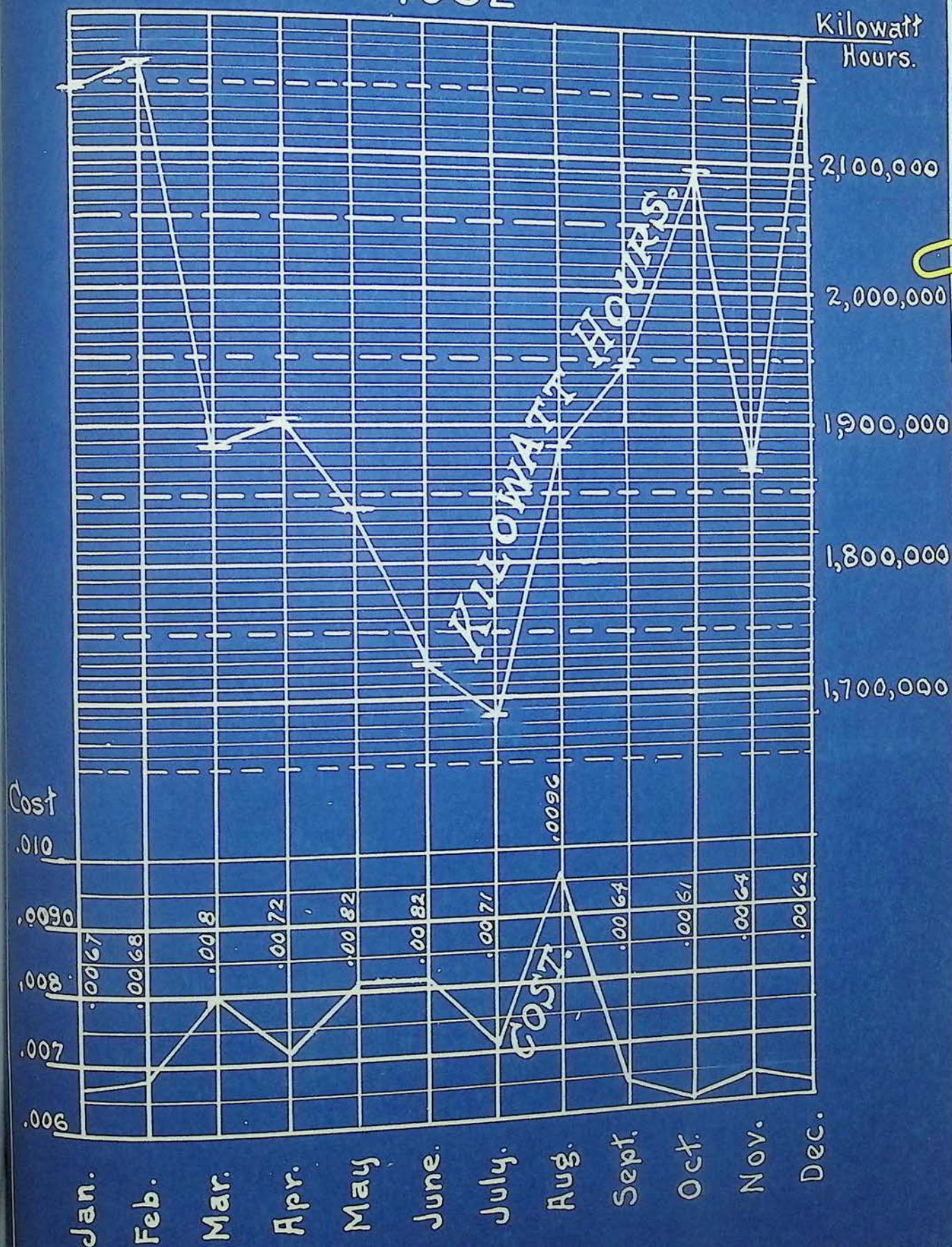
KILOWATT HOURS PER TON OF COAL MINED 1932

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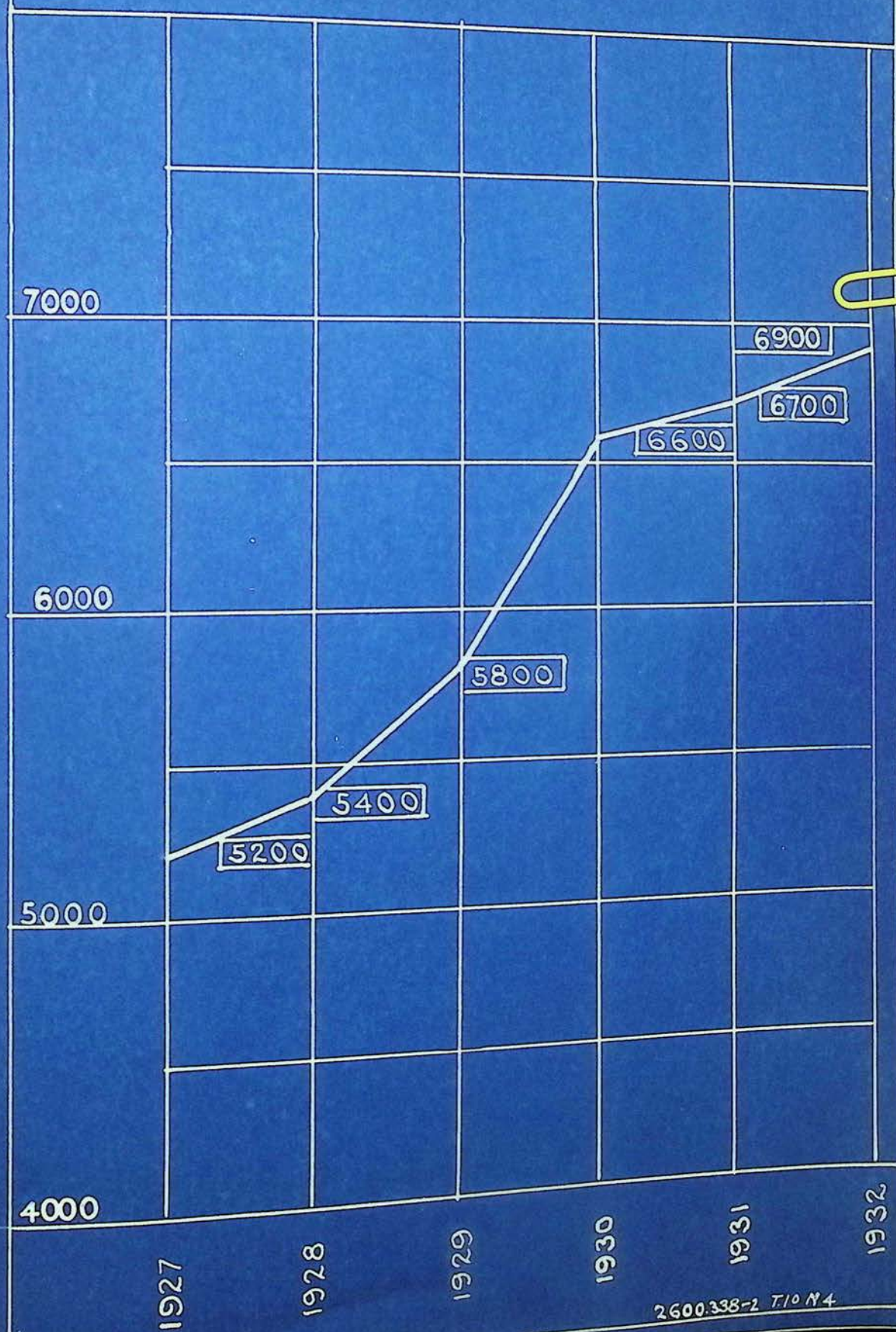
ROCK SPRINGS POWER PLANT COST AND OUTPUT 1932

164

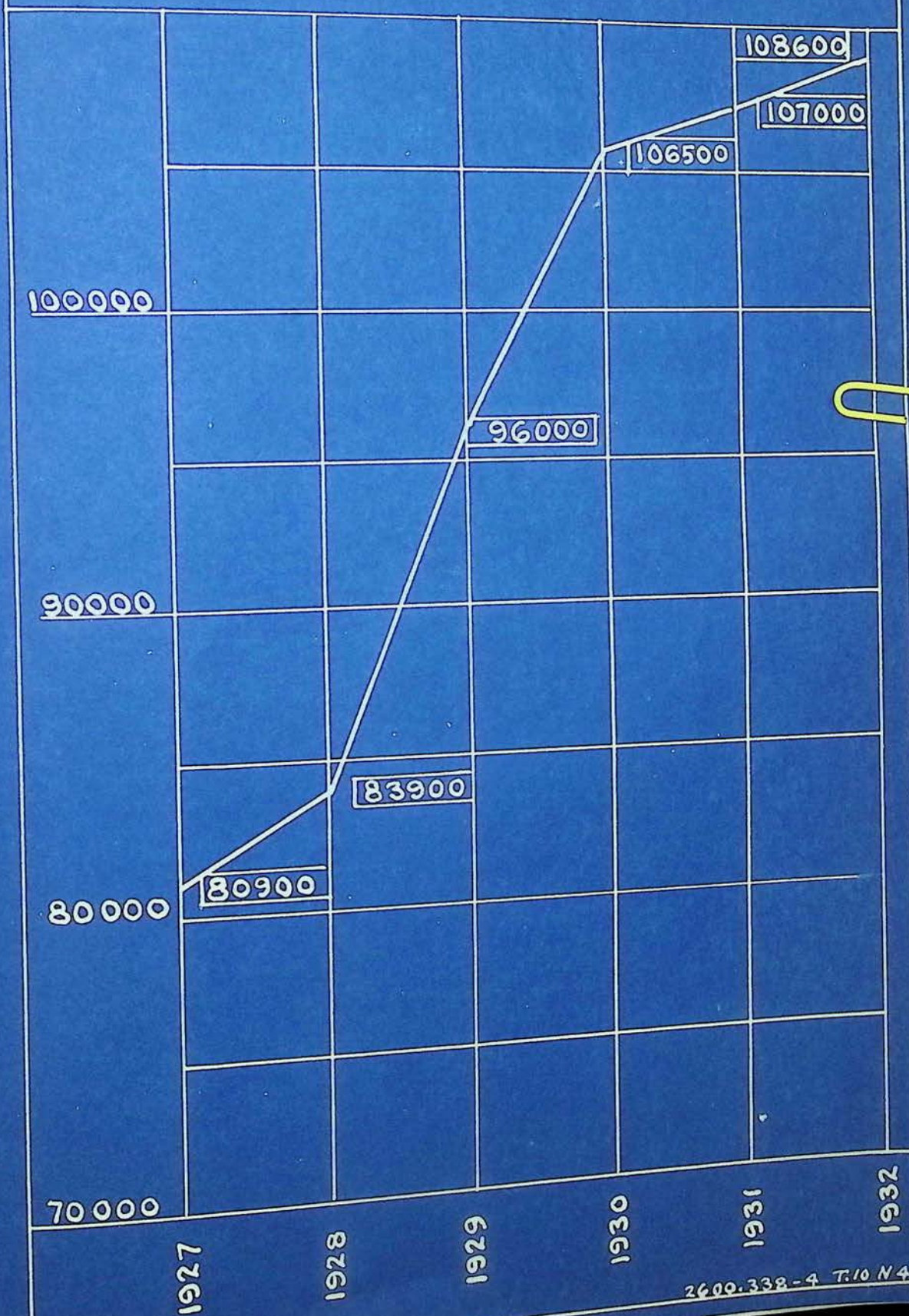


GREATEST OUTPUT KILOWATT HOURS FOR ONE HOUR ROCK SPRINGS POWER PLANT

165



GREATEST OUTPUT KILOWATT HOURS FOR 24 HOURS ROCK SPRINGS POWER PLANT



PEAK LOAD ROCK SPRINGS POWER PLANT



YEARLY OUTPUT KILOWATT HOURS ROCK SPRINGS POWER PLANT

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