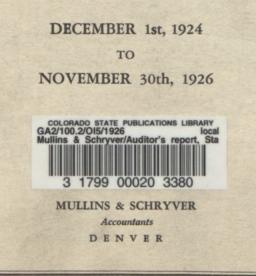
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## Auditor's Report

## State Inspector of Oils State of Colorado





THE BRADFORD-ROBINSON PTG. CO., DENVER

## Auditor's Report

# State Inspector of Oils State of Colorado



DECEMBER 1st, 1924 TO NOVEMBER 30th, 1926

MULLINS & SCHRYVER Accountants D E N V E R

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To His Excellency, GOVERNOR WM. H. ADAMS, Capitol Building, Denver.

### Dear Sir:

We beg leave to submit to you herewith a report of our audit of the accounts of the State Inspector of Oils of the State of Colorado for the biennial period ending November 30th, 1926.

Very respectfully,

MULLINS & SCHRYVER, By JAMES P. MULLINS.

Denver, Colorado, February 8th, 1927.

#### GENERAL CASH STATEMENT

The total cash receipts from Gasoline Taxes and Inspection Fees during the biennial period amounted to the sum of \$4,233,614.43, all of which was properly remitted to the State Treasurer, as evidenced by receipts on file.

An analysis of the Cash Book and General Ledger shows the source of such collections to be as follows:

	1925	
1 Cent Tax	\$ 16,424.79	
2 Cent Tax	1,848,096.26	
Inspection Fees	105,181.43	110 24
	able and a rest consider the	\$1,969,702.48
	1926	
1 Cent Tax	\$ 7,416.01	
2 Cent Tax	2,137,302.56	
Inspection Fees	119,193.38	
ADA & SCIENCE		2,263,911.95

\$4,233,614.43

Full details of the collection and disposition of the amounts shown above will be found in Schedules "A" and "B."

Detailed receipts, of which a carbon copy is retained in the department, are issued for all cash received, such receipts being properly entered in the General Cash Book and posted therefrom to the Ledgers.

We have carefully checked and verified all such receipts and postings and find same to be correct.

#### GASOLINE TAXES

The method of determining the amount of taxes due the State on gasoline is necessarily somewhat involved and our survey convinces us that every possible effort is being made to insure a complete and accurate assessment of such taxes. The adoption of a system of co-operation with the oil inspection departments of adjoining states whereby information concerning interstate shipments is exchanged, has aided materially in securing a more thorough recheck on oil and gasoline shipments into and out of the State.

The sources from which charges are made are mainly as follows: 1st. From samples sent in by dealers showing date of delivery, car numbers and gallonage.

2nd. From lists and statements of consignments submitted by dealers.

3rd. From a systematic and periodical recheck of deliveries and shipments through railroad offices.

4th. From reports received as a result of a system of co-operation with the oil inspection departments of adjoining states.

5th. From personal investigations by the Oil Inspector, his deputies and assistants.

Under these conditions it is inevitable that duplicate and erroneous charges will occur.

Such erroneous charges, when verified, are corrected either by a credit memorandum or by journal entry.

We have carefully examined all such credits and find same to be in proper form and duly approved by the Oil Inspector.

The present method of recording and entering charges appears to be working satisfactorily and is a noticeable improvement over the system formerly in use.

Complete statements of all charges and credits for gasoline taxes will be found in Schedules C, D, E and T.

#### INSPECTION FEES

The method of determining the amount of fees due on oil and gasoline tested is similar to that employed for the assessment of taxes (more fully described in foregoing paragraphs) and credits, where due, are allowed in the same manner.

Detailed statements of all fees charged and credits allowed will be found in Schedules F and G.

#### DELINQUENT TAXES

Prior to the amendment of the Gasoline Tax Law by the last Legislature, it was practically impossible for the department to enforce collection of delinquent taxes and fees except by civil suit, the result being that a number of dealers evaded payment of claims.

The imposition of fines and penalties for non-payment of claims, made possible under the amended law, has evidently been very effective, as the collection of current accounts is all that could be expected.

All old delinquent accounts and all current accounts that are

delinquent over thirty days have been turned over to the Attorney General for collection.

A letter from the Oil Inspector, in answer to our inquiry, explains more fully the reason for the large amount of unpaid taxes and fees in former periods. (See Exhibit "E".)

The total of taxes and fees due the State as of November 30th, 1926, as shown by ledger statement was as follows (see Schedule "(H'')):

Current Accounts	\$294,153.23
Suspense Accounts	17,836.41
Judgment Accounts	44,918.52
	\$356 908 16

These unpaid balances consist mainly of charges accrued prior to the enactment of the last amendment to the law. An analysis of these accounts gives the following result:

1 Cent Tax (Schedule C)	\$ 59,631.80
2 Cent Tax (Schedule E)	276,476.84
Inspection Fees (Schedule G)	17,752.67
Interest (Schedule J)	2,516.02
Penalties (Schedule J)	730.83

\$356,908.16

### MISCELLANEOUS CREDITS

As we stated before, it is impossible to avoid a great many duplicate charges which have to be corrected either by credit memoranda or journal entry.

In addition to this, gasoline used for farm or cleaning purposes or sold to the United States Government or to railroads or used for any purpose other than as specified by law, is exempt from taxes and any taxes collected or assessed on such gasoline must be refunded or abated.

In a number of cases, gasoline shipped into the State and taxed, is later trans-shipped out of the State and credit must be given for any taxes or fees collected or assessed thereon.

As a number of dealers have gone out of business or have become bankrupt, thus making collections impossible, certain old claims have been written off on the advice of the Attorney General.

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Under the circumstances, we believe that the miscellaneous credits that have been allowed are proper and legal and are fully substantiated by data on file in the department. A summary of credit allowances will be found in Schedule "T."

#### INTEREST AND PENALTY

The present Gasoline Tax Law, as amended by the last Legislature, gives the Oil Inspector authority to assess certain penalties and interest on delinquent dealers for non-payment of taxes. A statement of the interest and penalties so imposed and the collection of such charges will be found in Schedule "J."

#### INSPECTOR'S REVOLVING FUND

This fund, established by the State Auditing Board to enable the Oil Inspector to refund taxes erroneously collected on gasoline used for purposes other than those specified by law is, at the present time, intact.

The depletion of this fund by a former employe has been adjusted and the matter has been so thoroughly investigated and audited at considerable expense on other occasions that we do not see any necessity for further inquiry. A number of refund vouchers and cancelled checks seem to be still missing, but this fund is now being properly and carefully managed and all refunds appear to be made only after the most careful inquiry and investigation.

Complete detailed statements of this fund will be found in Schedules K, L, M, N and O.

#### APPORTIONMENT OF GASOLINE TAX

All revenue arising from taxes collected on gasoline is apportioned to the State Road Fund and to the several counties in proportion to the mileage of State roads in each county.

A complete statement of such apportionment during the biennial period will be found in Schedules R and S.

#### OPERATING COST

All costs incurred in the testing and inspection of oil and gasoline, the assessment and collection of taxes (including salary of a member of the Attorney General's staff), and in oil shale investigations and geological surveys in co-operation with the Federal government, are paid from the Inspector's Fee Fund.

The unexpended balance remaining in the fund on November 30th of each year is transferred to the General Revenue Fund of the State.

Detailed statements showing the expense incurred by the department for the years 1925 and 1926 will be found in Schedules P and Q.

#### MISCELLANEOUS EXHIBITS

In addition to the financial statements dealing with the activities of the department during the past biennial period, we are submitting comparative tables and exhibits that we believe will be of general interest.

We also include a brochure summarizing the work of the department through the laboratory at the State University at Boulder in co-operation with the United States Bureau of Mines, which was submitted to us by the State Oil Inspector.

In conclusion, we wish to state that our examination of this department has been more complete than any ever made in the past and we find that the conditions of management and accounting at the present time are far better than at any time in the past and we are satisfied that everything possible is being done to conduct the department in an efficient and conscientious manner.

Respectfully submitted,

MULLINS & SCHRYVER, By JAMES P. MULLINS.

#### SCHEDULE A

## GENERAL CASH STATEMENT December 1, 1924, to November 30, 1925

#### RECEIPTS

	1c Tax	2c Tax	Insp. Fees	Total
December, 1924\$	2,457.96	\$ 170,428.77	\$ 10,302.53	\$ 183,189.26
January, 1925	3,375.00	111,652.97	6,334.05	121,362.02
February, 1925	500.00	119,954.30	6,778.00	127,232.30
March, 1925	2,033.34	122,410.67	6,693.30	131,137.31
April, 1925	3,211.20	134,234.09	7,576.48	145,021.77
May. 1925	596.00	112,122.96	6,154.80	118,873.76
June, 1925	1,134.02	203,737.73	11,464.02	216,335.77
July, 1925	700.00	201,793.29	11,041.40	213,534.69
August, 1925	537.39	174,760.48	9,826.31	185,124.18
September, 1925	600.00	186,525.43	10,803.71	197,929.14
October, 1925	227.87	170,431.46	10,274.68	180,934.01
November, 1925	1,052.01	140,044.11	7,932.15	149,028.27
Totals	\$16,424.79	\$1,848,096,26	\$105,181.43	\$1,969,702.48

DISBURSEMENTS

Paid to State Treasurer.....\$1,969,702.48

### SCHEDULE B

## GENERAL CASH STATEMENT December 1, 1925, to November 30, 1926

#### RECEIPTS

	le Tax		2c Tax	Insp. Fees		Total
December, 1925\$	812.65	\$	153,023.08	\$ 13,434.82	\$	167,270.55
January, 1926	550.00		119,458.56	6,479.89		126,488.45
February, 1926	244.00		127,827.83	6,382.63		134,454.46
March, 1926	350.00		152,900.84	8,155.72		161,406.56
April, 1926	400.00		133,026.34	6,919.65		140,345.99
May, 1926	55.00		171,040.78	9,500.16		180,595.94
June, 1926	350.00		207,524.60	10,358.19		218,232.79
July, 1926	925.00		196,533.56	10,423.23		207,881.79
August, 1926	604.80		208,132.10	11,485.22		220,222.12
September, 1926	2,523.64		238,511.35	12,899.04		253,934.03
October, 1926	50.00		232,892.55	12,355.55		245,298.10
November, 1926	550.92		196,430.97	10,799.28		207,781.17
Totals\$	7,416.01	\$2	2,137,302.56	\$119,193.38	\$2	2,263,911.95

#### DISBURSEMENTS

Paid to State Treasurer.....\$2,263,911.95

#### SCHEDULE C

## EARNINGS STATEMENT—ONE CENT TAX December 1, 1924, to November 30, 1926

Balance due State under old one-cent Tax Law, Dec. 1, 1924.....\$176,247.37

#### CREDITS

	Cash	Miscellaneous	Total	
December, 1924\$	2,457.96		\$ 2,457.96	
January, 1925	3,375.00	\$ 8,679.09	12,054.09	
February, 1925	500.00		500.00	
March, 1925	2,033.34	450.97	2,484.31	
April, 1925	3,211.20	11,103.06	14,314.26	
May, 1925	596.00	14.70	610.70	
June, 1925	1,134.02	2,130.07	3,264.09	
July, 1925	700.00		700.00	
August, 1925	537.39		537.39	
September, 1925	600.00		600.00	
October, 1925	227.87	5.08	232.95	
November, 1925	1,052.01		1,052.01	
Totals\$	16,424.79	\$22,382.97	\$38,807.76	\$ 38,807.76
Balance due State, Dec. 1st,	1925			\$137,439.61
Miscellaneous Charges				

Total.....\$137,454.75

#### CREDITS

	Cash	Miscellaneous	Total	
December, 1925\$	812.65		\$ 812.65	
January, 1926	550.00		550.00	
February, 1926	244.00		244.00	
March, 1926	350.00	\$ 6,188.81	6,538.81	
April, 1926	400.00		400.00	
May, 1926	55.00		55.00	
June, 1926	350.00		350.00	
July, 1926	925.00	2,361.88	3,286.88	
August, 1926	604.80		604.80	
September, 1926	2,523.64		2,523.64	
October, 1926	50.00		50.00	
November, 1926	550.92	61,856.25	62,407.17	
		121-12-12-12-12-12-12-12-12-12-12-12-12-		
Totals\$	7,416.01	\$70,406.94	\$77,822.95	\$ 77,822.95
The second s				The second second

Balance due State, November 30th, 1926.....\$ 59,631.80

#### SCHEDULE D

## EARNINGS STATEMENT-TWO CENT TAX

### December 1, 1924, to November 30, 1925

Balance due State, December 1st, 1924.....\$200,840.11

#### TAXES ASSESSED

December, 1924\$150,898.32	
January, 1925 129,522.18	
February, 1925 128,319.95	
March, 1925 123,748.06	
April, 1925 134,218.53	
May, 1925 165,853.71	
June, 1925 212,662.66	
July, 1925 195,815.33	
August, 1925 187,106.00	and thereines
September, 1925 287,678.16	
October, 1925 159,240.37	
November, 1925 157,685.32	\$2,032,748.59
Total	\$2,233,588.70

#### CREDITS

	Cash M	liscellaneous	Total	
December, 1924\$	170,428.77	\$ 6,155.81	\$ 176,584.58	
January, 1925	111,652.97	4,298.65	115,951.62	
February, 1925	119,954.30	5,634.16	125,588.46	
March, 1925	122,410.67	7,985.71	130,396.38	
April, 1925	134,234.09	3,336.21	137,570.30	
May, 1925	112,122.96	4,228.95	116,351.91	
June, 1925	203,737.73	4,780.11	208,517.84	
July, 1925	201,793.29	1,992.85	203,786.14	
August, 1925	174,760.48	2,798.97	177,559.45	
September, 1925	186,525.43	12,483.08	199,008.51	
October, 1925	170,431.46	23,274.30	193,705.76	
November, 1925	140,044.11	31,122.10	171,166.21	
Totals\$1	1,848,096.26	\$108,090.90	\$1,956,187.16	\$1,956,187.16
Balance due State, Novem	ber 30th, 19	925		.\$ 277,401.54

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#### SCHEDULE E

## EARNINGS STATEMENT—TWO CENT TAX December 1, 1925, to November 30, 1926

Balance due State, December 1st, 1925.....\$ 277,401.64

#### TAXES ASSESSED

December, 1925\$154,728.	99
January, 1926 128,237.	
February, 1926 128,210.	30 -
March, 1926 147,683.	
April, 1926 170,925.	
May, 1926 192,644.	
June, 1926 198,885.	
July, 1926 224,354.	
August, 1926 247,025.	
September, 1926 231,215.	
October, 1926 194,726.	
November, 1926 177,393.	
Transferred from Int. Fund (Sch. J)	
Transferred from Pen. Fund (Sch. J) 1,299.	27 \$2,197,763.94

Total......\$2,475,165.58

#### CREDITS

	Cash M	liscellaneous	Total	
December, 1925\$	153,023.08	\$ 5,295.86	\$ 158,31	8.94
January, 1926	119,458.56	4,791.35	124,24	9.91
February, 1926	127,827.83	2,957.22	130,78	5.05
March, 1926	152,900.84	5,652.93	158,55	3.77
April, 1926	133,026.34	3,070.90	136,09	7.24
May, 1926	171,040.78	3,186.90	174,22	7.68
June, 1926	207.524.60	5,552.20	213,07	6.80
July, 1926	196,533.56	3,316.67	199,85	0.23
August, 1926	208,132.10	5,008.26	213,14	0.36
September, 1926	238,511.35	4,850.90	243,36	2.25
October, 1926	232,892.55	3,943.51	236,83	6.06
November, 1926	196,430.97	13,759.48	210,19	0.45
Totals\$	2,137,302.56	\$ 61,386.18	\$2,198,68	8.74 \$2,198,688.74
Balance due State, Novem	ber 30th, 19	26		\$ 276,476.84

## SCHEDULE F

## INSPECTION FEES

## December 1, 1924, to November 30, 1925

Balance due State, December 1st, 1924.....\$ 24,977.53

#### FEES CHARGED

December, 1924	8,319.20	
January, 1925	7,314.95	
February, 1925	7,216.15	
March, 1925	7,113.21	
April, 1925	7,653.03	
May, 1925	9,291.74	
June, 1925	11,659.99	
July, 1925	10,745.14	
August, 1925	10,394.94	
September, 1925	15,887.83	
October, 1925	8,838.24	
November, 1925	8,728.32	\$113,162.74
- Totals		.\$138,140.27

#### CREDITS

	Cash	Miscl.	Total	
December, 1924\$	10,302.53	\$ 360.03	\$ 10,662.56	
January, 1925	6,334.05	1,054.49	7,388.54	
February, 1925	6,778.00	274.13	7,052.13	
March, 1925	6,693.30	1,159.98	7,853.28	
April, 1925	7,576.48	2,069.28	9,645.76	
May, 1925	6,154.80	194.98	6,349.78	
June, 1925	11,464.02	282.88	11,746.90	
July, 1925	11,041.40	109.99	11,151.39	
August, 1925	9,826.31	38.86	9,865.17	
September, 1925	10,803.71	626.93	11,430.64	
October, 1925	10,274.68	1,254.99	11,529.67	
November, 1925	7,932.15	1,672.88	9,605.03	
Totals\$1	05,181.43	\$9,099.42	\$114,280.85	\$114,280.85
Balance due State, November 30th	n, 1925			.\$ 23,859.42

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#### SCHEDULE G

#### INSPECTION FEES

## December 1, 1925, to November 30, 1926

Balance due State, December 1st, 1925.....\$ 23,859.42

#### FEES CHARGED

December, 1925\$ 9,147.64	
January, 1926 7,113.47	
February, 1926 7,195.42	
March, 1926 8,848.01	
April, 1926 9,628.29	
May, 1926 10,731.84	
June, 1926 10,949.49	
July, 1926 12,483.52	
August, 1926 13,678.56	
September, 1926 12,566.99	
October, 1926 10,512.86	
November, 1926 9,660.34	\$122,516.43
Totals	\$146,375.85

#### CREDITS

	Cash	Miscl.	Total	
December, 1925\$	13,434.82	\$ 193.34	\$ 13,628.16	
January, 1926	6,479.89	95.43	6,575.32	
February, 1926	6,382.63	158.00	6,540.63	
March, 1926	8,155.72	715.87	8,871.59	
April, 1926	6,919.65	597.47	7,517.12	
May, 1926	9,500.16	117.64	9,617.80	
June, 1926	10,358.19	204.06	10,562.25	
July, 1926	10,423.23	122.53	10,545.76	
August, 1926	11,485.22	187.49	11,672.71	
September, 1926	12,899.04	168.66	13,067.70	
October, 1926	12,355.55	110.83	12,466.38	
November, 1926	10,799.28	6,758.48	17,557.76	
Totals\$	119,193.38	\$9,429.80	\$128,623.18	\$128,623.18
Balance due State, November 30t	h, 1926			.\$ 17,752.67

## SCHEDULE H

## GENERAL LEDGER STATEMENT

## Balances Due State November 30, 1926

	Fees	Taxes	Total
Adams Motor Co	16.12	\$ 315.92	\$ 332.04
Allen, V. S. Oil Co	56.56	1,108.56	1,165.12
Apex Refining Co	32.08	628.76	660.84
Apex Refining Co. 1c		1,700.00	1,700.00
Arapahoe Co., Oil Co	24.39	336.88	361.27
Atchison, Topeka & S. Fe. Ry. Co	2.88	.85	3.73
Bagsby Motor Co	6.24	122.36	128.60
Barnett Gas & Oil Co	96.86	1,898.44	1,995.30
Birdsall-Stockdale Motor Co	32.26	632.30	664.56
Boggs Auto Supply Co	62.62	1,227.26	1,289.88
Bolene Refining Co	65.54	1,126.50	1,192.04
Bonnell, H. F.		15.13	15.13
Boulder Auto Wrecking Co	7.97	156.20	164.17
Boyd Grain Co.	18.63	*85.83	*67.20
Bradford Auto Co Brighton Service Station	.02		.02
Broadmoor Hotel Co	14.54 $8.19$	285.00	299.54
Brooks & Hartman	40.53	160.58 794.26	168.77
Buchanan, C. S.	24.24	1,164.54	834.79
Buchanan, C. S. 1c		700.00	1,188.78 700.00
Burlington Oil Co	. 8.12	159.08	167.20
Durington on contraction the	. 0.12	100.00	101.20
Carver, Ed R	24.03	313.80	337.83
C. M. S. Motor Co	.01	*.02	*.01
Castle Coal & Supply Co	22.55	442.06	464.61
Central Garage	16.18	317.06	333.24
Chew Agri. Motor Co	8.08	115.66	123.74
Chicago B. & Q. Ry. Co	5.79		5.79
Cities Service Oil Co	71.86	1,402.12	1,473.98
City & Co. of Denver	607.57	11,908.40	12,515.97
City of Colorado Springs	8.12	159.06	167.18
City Oil & Fuel Co	32.39	634.82	667.21
Cline, W. L	6.46	45.00	51.46
Cohan, J.	145.32	2,530.42	2,675.74
Colorado Springs Interurban Ry. Co	8.18	160.40	168.58
Colorado & Utah Petroleum Co	30.82	604.04	634.86
Colorado & Southern Ry. Co Consumers Oil Co	6.86		6.86
Continental Oil Co	56.32	1,103.86	1,160.18
Craddock & Moore	2,228.69 16.24	39,963.90	42,192.59
Crown Service Co	50.24	$318.28 \\ 736.00$	$334.52 \\786.24$
Crystal Oil & Gas Co	16.23	318.02	334.25
Cuney & Smith	6.89	135.10	141.99
	0.00	100.10	111.00
Daum, F. P	8.15	159.74	167.89
Davis, D. E	8.11	159.02	167.13
Denver Powerine Co	438.07	8,262.96	8,701.03
Denver & Rio G. W. R. R. Co	29.03		29.03
Denver Union Co	64.00	2,437.94	2,501.94
Denver Union Co. 1c		2,485.06	2,485.06
Diodosio, Mike		166.11	166.11
Foklas Filling Station	10.00	917.00	
Eckles Filling Station Elders Garage	$16.22 \\ 16.20$	$317.86 \\ 317.52$	334.08
Everybody's Service Station	24.10	317.52 472.26	333.72 496.36
interspondy & bervice blation	24.10	412.20	430.30

	Fees	Taxes	Total
Flagler Filling Station\$	16.14 \$	316.24	\$ 332.38
Fleming Service Station	8.08	158.42	166.50
Forbush Fuel & Ice Co	24.33	476.84	501.17
Ford Motor Co	25.10	112.42	137.52
Forsythe Oil Co. (Transfer ac.)		12,651.39	12,651.39
Forsythe Oil Co	513.68	8,074.00	8,587.68
Fort Lupton Service Station	32.28	$632.64 \\ 159.18$	664.92 167.30
Fowler Motor Co	8.12	109.18	101.30
Genoa Oil Co	16.07	315.06	331.13
Giddings & Thayer	8.08	158.30	166.38
Golden Rod Filling Station	32.26	1,423.83	1,456.09
Golden Rule Ref. Co	26.83	517.92	544.75
Goracke, F. M	13.00	111.26	124.26
Hallenbeck, Chas. V	24.18	473.92	498.10
		.01	.01
Hart Brothers		127.20	127.20
Hicks & Remington	32.14	465.39	497.53
Holyoke Farmers Co-Op. Elevator Co	8.20	160.64	168.84
Home Oil Co., Grand Junction	88.61	1,590.58	1,679.19
Home Oil Co., Springfield		10.69	10.69
Home Oil & Supply Co., Lamar	56.83	1,113.90	1,170.73
Hopkins, Earl		20.00	20.00
Hudnall Oil Co	64.67	1,267.60 117.62	$1,332.27 \\ 123.62$
Huerfano Trading Co	6.00 47.00	921.06	968.06
Hughes Filling Station	40.63	41.29	81.92
Hussie, Maurice	10.00		
Jeremiassen, Ross	.01		.01
Jewel Co., Inc.	397.44	7,416.71	7,814.15
Jones, R. M., Garage	6.51	127.56	134.07
Kaufman, Jacob	1.00	8.18	9.18
Keeling Oil Co	16.30	319.48	335.78
Kelsey Motor Co	22.32	437.38	459.70
Kent Oil Co	8.06	160.00	168.06
Kiser Roberts Oil Co	16.25	318.52	334.77
Kittell, A. C	*.01	*1.21	*1.22
La Veta Automotive Co		*.02	*.02
Lenzini Motor Co	16.33	319.98	336.31
Lincoln Co. (Bd. of Co. Comr.)	8.11	158.98	167.09
Loser Oliver Oil Co	72.73	1,425.44	1,498.17
Loser Oliver Oil Co. 1c		1,613.29	1,613.29
Loveland Filling Station	14.34	281.02	295.36
Loveland Filling Station 1c		208.69	208.69
Manter Oil Co	2.06	56.68	58.74
M. & K. Oil Co	6.19	121.28	127.47
Marland Refining Co	89.18	1,589.27	1,678.45
Marshall & Neiman	63.18	1,118.18	1,181.36
Mellett Oil Co	40.34	790.62	830.96
Merchants Oil Co	211.01	4,135.86	4,346.87
Miller, Otto N., Garage	24.15	473.24	497.39
Mitchell Service Station	14.69	1,328.25	1,342.94
Morrison Oil Co	106.26	1,947.36	2,053.62
Mountain Tire & Gas Co	58.82	1,700.83	1,759.65
Mountain Tire & Gas Co. 1c		2,862.76	2,862.76

	Fees	Taxes	Total
McBurney Oil Co\$	40.50	\$ 793.84	\$ 834.34
McCune Scott Oil Co	16.12	315.96	332.08
McGrath Service Station	40.06	785.14	825.20
McGrew, O. H. Oil Co	22.40	438.94	461.34
McGrew, O. H. Oil Co. 1c		650.00	650.00
McGrew DeLong Oil Co	66.86	1,152.62	1,219.48
McNeal Oil Co	20.26	397.12	417.38
National Oil Co	8.09	158.46	166.55
Navy Gas Co	71.30	2,210.77	2,282.07
Navy Gas & Supply Co., Denver	488.67	9,418.26	9,906.93
		5,350.00	5,350.00
Navy Gas & Supply Co., Pueblo	40.05	705.98	746.03
Nelson Fruit Co	24.20	474.22	498.42
Northern Garage	66.59	1,305.12	1,371.71
Charter of the State of the State of the			
Oasis Service Station	15.93	312.24	328.17
Oberholtz Oil Co	*75.22	1,387.75	1,312.53
Otero Petroleum Sales Co	32.11	629.40	661.51
Out West Oil Co	16.18	317.20	333.38
Out West Oil Co. 1c		400.00	400.00
		*.33	*.33
			stars") puttern"
P. & M. Oil Co	12.43	243.70	256.13
Paramount Lub. Co	194.31	3,808.40	4,002.71
Paramount Oil Dist. Corp	24.18	473.82	498.00
Peetz Oil & Supply Co	8.05	141.14	149.19
Penfold, J. W	24.44	479.02	503.46
Penfold Service Station	63.26	1,112.56	1,175.82
Peoples Oil Co	16.16	316.76	332.92
Peoples Oil & Supply Co	14.65	290.96	305.61
Peterson, Peter	6.50	127.46	133.96
Petrol Benzol Co. of Colorado	2.60	50.90	53.50
Platte Cascade Filling Station	48.72	954.94	1,003.66
Porter Oil Co	.09	*.04	.05
Post Exchange	15.12	296.30	311.42
Post Office Filling Station	14.43	282.74	297.17
Poudre Canon Filling Station	16.13	316.10	332.23
Pueblo Gas & Service Co	16.27	318.98	335.25
Putnam Filling Station	16.21	317.70	333.91
Pink's Service Station	24.37	477.62	501.99
Quality Oil Co	32.19	360.96	393.15
Raven Oil & Refining Co	.68	13.36	14.04
Red Cap Service Station	8.15	159.82	167.97
Rendle Dow Stores Co	8.48	159.02	167.50
Rio Oil Co	31.31	613.58	644.89
Riverside Filling Station	8.08	158.28	166.36
Riverside Ice & Storage Co	16.35	320.40	336.75
Roberts Oil Co., Ray A	105.08	450.40	555.48
Rocky Mt. Coal & Iron Co	8.10	79.48	87.58
Romine Oil & Supply Co., Inc	40.77	1,310.54	1,351.31
Royal Filling Station	04.00	2.75	2.75
Rutherford's Service Station	24.22	474.66	498.88
Sayler Oil Co	16 14	210.00	222.40
Scott, Charles P	16.14 8.06	316.28	332.42
Seals Filling Station	6.26	$\begin{array}{r} 79.18\\122.74\end{array}$	87.24
Sears & Sears	16.13	316.16	$129.00 \\ 332.29$
Sentry Oil Co	26.66	499.78	526.44
benerg on commentation and and	20.00	100.18	020.44

	Fees	Taxes	Total
Chan 01 Ch			\$ 169.64
Shane Oil Co	8.24 30.67	\$ 161.40 601.08	631.75
Sherman Auto Co Shield Oil Co	32.31	4,379.54	4,411.85
Sinclair Ref. Co., Kansas City, Mo	177.06	3,014.16	3,191.22
Sinclair Ref. Co., Omaha, Neb	419.97	7,850.02	8,269.99
Sinclair Ref. Co., Wichita, Kan		*.02	*.02
Sipple Oil Co	8.05	157.76	165.81
Skinner, J. H. Oil Co	24.96	475.08	500.04
Smith, F. M., Holyoke, Colo	*.35		*.35
Smith & Hoxie, Limon, Colo	6.46	126.62	133.08
Smith Oil Co., Sterling, Colo	6.19	121.36	127.55
Sommers Oil Co	450.81	8,555.82	9,006.63
Starkey Automatic Pump Co	40.05	1,422.36	1,462.41
Stedwell & Son	16.32	305.58	321.90
Stewart, Virgil	.23	3.80	4.03
Strang Garage Co	24.48	479.70	504.18
Sugar City Auto Co	8.11	159.00	167.11
Sunday's Garage	16.11	315.82	331.93
Superior Refining Co	91.51	1,793.64	1,885.15
Superior Oil Co		9,280.15	9,280.15
Telinde, George	12.57	246.36	258.93
Texas Company	1,093.62	20,631.34	21,724.96
Tolliver & Kinney	34.30	838.82	873.12
Tolliver & Kinney 1c		987.09	987.09
Triangle Motor Co	16.39	321.22	337.61
Triangle Oil & Supply Co	64.50	1,264.20	1,328.70
Trinidad Oil Co	$93.33 \\ 12.30$	1,829.24 241.10	1,922.57 253.40
Turner Brothers	12.50	241.10	200.40
Union Pacific Ry. Co	38.68		38.68
Union Refining Co	178.63	3,501.28	3,679.91
Velvetine Oil Co	79.83	1,408.38	1,488.21
Vickers, A. A. Petroleum Co	300.44	5,656.56	5,957.00
Victory Motor Co	8.17	160.14	168.31
Victory Oil Corporation	16.09	315.28	331.37
Vollmer Brothers	8.22	161.16	169.38
	0 50		0 50
Warren Lumber Co	$\begin{array}{r} 6.53 \\ 146.13 \end{array}$		6.53
Water Commissioners, Board of	140.13	2,863.92 320.55	3,010.05 336.87
Weld County Lumber Co	16.28	319.14	335.42
West Central Oil Co West Denver Coal & Oil Co	149:59	2,932.10	3,081.69
White Eagle Oil & Refining Co	381.56	6,616.72	6,998.28
Windsor Oil Co	8.13	159.24	167.37
windsor on commentation	0.10	100.01	101.01
Zang Ph. Co	8.20	160.74	168.94
	12.597.67	\$281,555.56	\$294,153.23
	1		
*Indicates Credit Balance.			

## GENERAL LEDGER STATEMENT

#### SUSPENSE ACCOUNTS

	Fees	Taxes	Total
Aldridge & Son\$	*8.19	\$ *85.43	\$ *93.62
Cuney & Smith	90.46	758.67	849.13
Economy Gas Co	151.32	248.68	400.00
Forsythe Brothers	24.43	699.02	723.45
Forsythe Oil Co. 1c	124.11	355.81	479.92
Forsythe Oil Co. 2c	8.11	159.00	1.67.11
Great Western Oil Co	49.10	4,451.86	4,500.96
Kerr, Sherman & McFall	7.95		7.95
Robinson Service Corporation	*28.95	372.66	343.71
Royal Oil Co	40.42	4,547.31	4,587.73
Sommers Oil Co	1,405.12	3,115.53	4,520.65
Starkey Filling Station	261.88		261.88
Vickers Petroleum Co	91.43	896.11	987.54
Sentry Filling Station		100.00	100.00
ALTER A MARCH & MARCH CONTRACTOR			and stall
Totals\$			
10 11 12 14	of a condition	and starts of	to sheatell

#### JUDGMENT ACCOUNTS

V. S. Allen	\$ 1,778.08 \$ 12,560.47 \$ 14,338.55	
Northern Garage		
Triangle O. & S. Co	323.98 2,425.29 2,749.27	
Starkey Filling Station	20,154.18 20,154.18	
STATE IN CALLS		
Totals	\$ 2,937.81 \$ 41,980.71 \$ 44,918.52	
	and the second second second	

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10.0123 02.0\*

Balance also Diste. New andrer Mills - 113

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## SCHEDULE J

## INTEREST AND PENALTY ON DELINQUENT TAXES

#### INTEREST

IN I BICESI		
Interest Assessed—		
March, 1926	\$1,821.91	
July, 1926	. 735.77	
September, 1926	15.96	
October, 1926	107.78	
November, 1926	83.26	\$2,764.68
Cancellation of Charge	\$ 15.96	
*Cash Collections-		
March, 1926\$241.66		
September, 1926 15.96		
October, 1926 91.82		
November, 1926 83.26	\$ 432.70	\$ 448.66
Balance due State, November 30th, 1926		\$2.316.02

#### PENALTY

November, 1926	\$1,379.07
October, 1926 354.75	
September, 1926 79.80	
March, 1926\$583.29	
*Cash Collections-	
Cancellation of Charge\$ 79.80	
November, 1926	\$2,109.90
October, 1926 434.55	
September, 1926 79.80	
March, 1926\$1,314.12	

\*Transferred to two cent road tax fund and cash collections shown above are included in Schedule E.

Depalting Amongod

#### SCHEDULE K

## GASOLINE TAX REFUND ACCOUNT (INSPECTOR'S REVOLVING FUND)

#### RECEIPTS

Cash Balance in Fund, December 1st, 1924, as per report of Public
Examiner\$ 57.51
Outstanding checks of Nov. 30th, 1924, cancelled 216.24
Reimbursements by State Auditing Board as per schedule L 88,765.55
Miscellaneous Collections- January, 1925\$ 24.78
January 1925

	Total																												 0 0 0 0 0 0
Nov	vember, 192	6.	• •	•••	•••	• •	•	• •	• •	•	•••	•	• •	•	•	• •	•	•••	•	• •	•••	•	• •	•	• •	•	•	69.21	\$ 289.69
	vember, 192																												
Oct	ober, 1925 .		• •			• •				• •					• •				•						• •			19.66	
Sep	tember, 192	5.			• •		• •	• •		• •											•			•				20.00	
Man	rch, 1925 .			• •	• •		•••	• •		• •							•			• •								1.28	
	uary, 1925																												

#### DISBURSEMENTS

Cash Refunds by Inspector (Schedule M)\$8	7,631.28
*Balance Chargeable, Nov. 30th, 1926	1,697.71
Total	9,328.99

#### RECONCILIATION

*Balance as shown above\$	1,697.71
Reimbursements due from State Auditing Board for checks paid by bank in Nov., 1926, as per Schedule N	2,881.97
Outstanding checks to be reimbursed when returned by bank Sched- ule O.	420.32
Total of Revolving Fund\$	5,000.00
*Balance in bank as per bank statement\$2,118.03	
Checks outstanding, Schedule O 420.32	
True Bank Balance as shown above\$1,697.71	

## SCHEDULE L

## REIMBURSEMENTS OF INSPECTOR'S REVOLVING FUND

Voucher-
261251\$ 2,610.85
263557 2,524.74
264774) [das 36 day so may 1 35 1 1
13.72266499
25.01267832 2,891.30 2,891.30 2,891.30 2,891.30 2,891.30 2,891.30 2,891.30 2,891.30 2,891.30 2,841.58 1,00
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273619
273620 <sup>3</sup> 1. 273621 <sup>03</sup> 4. 
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275110 C 0.0 276682 33.81 
276682 33.91 276683 35.931 
276683 ***********************************
278360 2.683.00 2.683.00 2.905.94
280749 2,000.04
282566
282567 2,749.52
26. 283634
11.1e284635 285260 2831 202 081 202 081 202 081 201 201 201 201 201 201 201 201 201 20
285583 1,342,99 28,5583
287254 2.388.88
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288590 1,846.45
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301010 1,400.30
301363 1,766,60 303120 17 Yeb.11
304016 3,273.96
305000 973.93
Matel ADD FOR FF
Total\$88,765.55

## 

## CASH REFUNDS OF TAXES BY OIL INSPECTOR

P. 5	.51120
December, 1924	\$ 2,568.51
January, 1925	2,735.74
February, 1925	1,189.30
March, 1925	2,966.23
April, 1925	2.911.94
May, 1925	2,779.71
June, 1925	1,703.70
July, 1925	2.746.14
August, 1925	1,518.33
	Pr Mar and Pr
September, 1925	2,705.16
October, 1925	3,430.74
November, 1925	3,047.30
December, 1925	3,156.12
January, 1926	3,027.27
February, 1926	1,818.76
March, 1926	3,205.36
April, 1926	4,323.15
May, 1926	22,897.04
June, 1926	
	3,499,47
July, 1926	61 194 11 43
August, 1926	3,788.70
September, 1926	2,973.69
October, 1926	5,389.98
November, 1926	, 3,248.94
and the second s	
Total	\$87,631.28
A REAL AND A	11111

## SCHEDULE N

## REIMBURSEMENTS DUE FROM STATE AUDITING BOARD (Paid in December, 1926)

	一、当家书书书书书书书书书书书书书书书书书书书书书 人名法法法书书书书书书书书书书书书书	63102
Claim Numb	ber Check Number	Amount"
24704	24792	\$ 8.58
24759	24847	23.30
24937	25022	60
25039	25123	39.38
25054	25138	2.00
25062	25146	3.00
25063	25147	1.00
25066	25150	1.00
25067	25151	1,00
25069	25153	6,40
25072	25156	2.68
25073	25157	3.20
25075	25159	6,30
25081	25165	2.40
25083	25167	17.30
25086	25170	13,50
25087	25171	2.98
25088	25172	
25089	25173	2,80
25095	25179	3.10
25103	25187	2.00
25107	25191	8.20
25108	25192	1.10

32.70

25170

Claim Number	Check Nur		Amount
25109	25193	\$	
25110	25194		1.80
25111	25195		3.20
25113	25197		2.00
25114	25198		14.60
25116	25200		1.00
25117	25201	*****	1.60
25118	25202		1.00
25119	25203		5.20
25120	25204		2.00
25121	25205	·····	3.00 4.80
25122	25206		9.16
25123	25207 25208		1.20
$\begin{array}{r} 25124\\ 25127\end{array}$	25208		1.00
25127	25211		1.80
25128	25212		2.60
25131	25215		3.40
25132	25216		2.60
25133	25217		4.00
25134	25218		10.80
25135	25219		3.20
25136	25220		10.90
25137	25221		4.50
25138	25222		2.80
25139	25223		10.60
25140	25224		6.48
25141-2	25225	·····	8.00
25143	25226	,	2.04
25144	25227		6.40
25146	25229		3.40
25147	25230		1.00
25148	25231		3.20 8.40
$25150 \\ 25151$	25233 25234		8.40 4.40
25151	25235		2.00
25152	25236		7.90
25153	25237		4.20
25155	25238		8.00
25156	25239		2.40
25158	25241		1.00
25159	25242		14.40
25160	25243		4.40
25161	25244		3.00
25162	25245		1.20
25163	25246		10.60
25164	25247		6.50
25165	25248		3.40
25166	25249		69.30
25167	25250 25251		4.10 12.16
25168			
25169 25170	25252 25253		8.10 8.56
25170 25171	25253		8.56 2.10
25171 25172	25255		6.60
25173	25256		5.70
25174	25257		1.00
25175	25258		2.06
25176	25259		6.76
25178	25261		5.42
25179	25262		.55
25180	25263		.24
11			

Claim Number	Check Mun	han			Amount
25181	25264				
				\$	
25182	. 25265				.60
25183	25266				11.50
25184	25267				2.20
25185	25268			•••••	7.34
25186	25269				7.74
25187	25270				8.70
25188	2.5271			•••••	.60
25189	25272				4.30
25190	25273				7.68
25191	25274				6.00
25192	25275				2.00
25193	25276				3.40
25194	25277				2.20
25195	25278				8.00
25196	25279				3.08
25197	25280				1.10
25198	25281				3.00
25199	25282				2.00
25200	25283				2.40
25201	25284				.60
25202	25285		• • • • • • • • • • • • •		2.40
25206	25287				8.90
25207	25288				1.30
25208	25289				1.00
25209	25290				2.00
25210	$25291 \\ 25293$				6.00
$25212 \\ 25213$			• • • • • • • • • • • • • •		2.00
25213 25214	$25294 \\ 25295$				1.10
25214 25215	25295				8.48
25215	25296				$1.00 \\ 1.00$
25210	25291				2.00
25218	25299				4.70
25220	25301				12.20
25221	25302				1.00
25222	25303				5.40
25223	25304				1.80
25224	25305				. 4.40
25225	25306				9.40
25227	25308				1.10
25228	25309				49.72
25229	25310				29.90
25230	25311				2.16
25231	25312				1.60
25232	25313				21.30
25233	25314				37.20
25234	25315				1.00
25235	25316				33.30
25236	25317				5.40
25237	25318				3.80
25238	25319				5.00
25239A	25321				2.10
25241	25323				5.32
25242					23.36
25243					6.00
25244					2.00
25245					5.00
25246					3.40
25247					3.00
25251					4.38
25252	25334				1.10

			ALTER DE L
Claim Number	Check Nun	aber	Amount
25253	25335		1.10
25254	25336		2.90
25255	25337		3.30
25256	25338		2.20
25257	25339		1.40
25258	25340		4.30
25259	25341		3.60
25260	25342		2.20
25261	25343		3.30
25263	25345		34.92
25264	25346		1.00
25265	25347		68.86
25266	25348		1.30
25269	25351		5.10
25270	25352		.60
25270	25352		8.60
	25354		7.90
25,272			.60
25273	25355		91.40
25274	25356		the second second second
25275	25357		3.00
25276	25358		7.40
25278	25360	·····	6.12
25279	25361		9.10
25280	25362		4.00
25281	25363		29.52
25282	25364		7.80
25283	25365		1.00
25284	20000		5.66
25285	20001		30.68
25286	25368		2.18
25287	25369		16.80
25288	25370		4.30
25289	25371	·	16.10
25290	25372		4.70
25291	25373		9.54
25292	25374		3.00
25294	25376		4.24
25295	25377		3.20
28444	25382		1,495.28
21417	25383		11.40
23804	25384		5.00
23862	25385		2.10
23914	25386	·	1.22
23915	25387		.42
23916	25388	·	.66
24026	25389		8.06
24347	25390		3.10
20183	25391	Construction and a second state of the second	10.20
23487	25393		14.70
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13. Total	***********		2,881.97
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## SCHEDULE O

## (CIAUL MELL OUTSTANDING CHECKS 6207,03 November 30, 1926

Check No.	Amount	Check No.	Amount
22349	\$ 3.50	24796	\$ 8.10
22452	2.00	24824	
22472	1.10	24854	
22515	2.70	24,913	
22565		24928	13.98
22626	1.00	24942	
22648		25012	1.70
22676	1.00	25028	
22726	5.50	25036	1.10
22837		25047	8.60
22962	1.00	25086	
22963		25105	1.50
23057	7.30	25106	
23060	1.00	25113	
23101		25114	
23155		25115	
23158		25116	3.30
23232		25118	1.00
23264	1.08	25119	4.00
23311		25126	
23836	1.20	25131	6.62
	. 1.10	25144	2.00
international and a second second second	. 7.28	25154	6.00
23964		25163	7.52
first day unless a work and works		25196	
24070		25199	3.00
		-25209	3.60
		25210	
		25214	
24216	. 7.50	25228	1.00
24252 24254		25232	
		25240	4.70
		25260	13.80
24290		25292	5.70
24349		25300	3.10
24425		25320	
24454			
24486			7.30
24560		25331	
24564	. 4.90	0 - 0 0 0	
24594		25344	
24595	. 2.78	25344 25349	
24596			
24597		25350	3.00
24598		25359	6.00
24599		25375	
24603	. 17.20	25392	2.60
24613	. 5.40		
24664			\$420.32
24669	. 8.34		
24686	. 21.02		
24733	. 2.00		The second strategies in the second strategies and
94748	1.40		

1.40

4.40

24748 .....

24774 .....

29

## SCHEDULE P

## OPERATING STATEMENT (INSPECTION FEE FUND) December 1, 1924, to November 30, 1925

#### INCOME

Inspection Fees collected by Inspector and remitted to State
Treasurer\$105,181.43
Less outstanding Vouchers of 1924 11.48
Available for period\$105,169.95

#### EXPENSE

Salary of Oil Inspector.\$3,000.00Salaries of Deputies.5,761.60Salary of Auditor.1,875.00Salaries of Stenographers.3,483.34Salary of Draftsman.1,875.00Salary of Collector1,875.00Salaries of Assistant Inspectors.5,325.00Travel Expenses6,368.67Office Supplies and Equipment.7,475.04Oil Shale Investigators.8,113.50Geological Survey3,090.20Special Audit990.03Transferred to General Revenue.7	\$ 49,232.38 57,492.56
Total	
Total	\$106,724.94
Vouchers Outstanding, November 30th, 1925	1,554.99
Total	\$105,169.95
Outstanding Vouchers, Nov. 30th, 1925:	
285709\$ 799	.13
282008	.80
282010	.50
282007 194	.31
282009	.25
282092 190	.00
282093 150	.00
282091 190	.00
Total\$1,554	.99

#### SCHEDULE Q

## OPERATING STATEMENT (INSPECTION FEE FUND) December 1, 1925, to November 30, 1926

#### INCOME

Inspection Fees collected by Inspector and remitted to State	
Treasurer	\$119,193.38
Less outstanding Vouchers of 1925	
CALIFICATION AND A CALIFICATION	

Available for period......\$117,638.39

#### EXPENSE

Salary of Oil Inspector\$3,000.00	
Salaries of Deputies 4,200.00	
Salaries of Assistant Inspectors	
Salary of Bookkeeper 2,300.00	
Salary of Auditor 700.00	
Salary of Collector	
Salaries of Stenographers 4,970.00	
Oil Shale Investigators	
Salary and Expense Legal Assistance 2,539.30	
Travel Expenses	
Office Supplies and Equipment 4,251.17	
Telephone, Telegraph, etc 502.08	
Laboratory Expense and Equipment	
Geological Survey 4,234.93	\$ 51,127.07
Transferred to General Revenue	66,556.26
Total	\$117,683.33
Vouchers Outstanding, November 30th, 1926	44.94
Total	\$117,638.39
Outstanding Vouchers, Nov. 30th, 1926:	
No. 592	\$ 44.94

## SCHEDULE R

## GASOLINE TAX FUND (STATE AUDITOR'S ACCOUNT) December 1, 1924, to November 30, 1926

Cash Balance in Fund, Dec. 1, 1924	
Received from Oil Inspector (Schedule A)	. 1,864,521.05
Total	.\$2,284,704.07
Transferred to State Road Fund (1925)\$ 917,492.14	
Dist. to Counties, Jan., 1925 (Sch. S) 504,229.45	
Dist. to Counties, July, 1925 (Sch. S) 400,262.69	
Cash Refunds of Taxes 29,879.71	\$1,851,863.99
Cash Balance in Fund, Nov. 30th, 1925	\$ 432,840.08
Received from Oil Inspector (Schedule B)	2,144,718.57
Total	\$2,577,558.65
Transferred to State Road Fund (1926)\$1,043,197.43	
Dist. to Counties, Jan., 1926 (Sch. S) 507,204.05	
Dist. to Counties, July, 1926 (Sch. S) 438,993.39	
Cash Refunds of Taxes 58,885.84	\$2,048,280.71
*Cash Balance in Fund, November 30th, 1926	\$ 529,277.94

\*The sum of \$616,022.82 was distributed to Counties in January, 1927. For details see Schedule S on next page.

## SCHEDULE S

## O DISTRIBUTION OF ROAD TAX TO COUNTIES

0	SGI .08 192	danavold of	PP 1. 1025	NI DEGEN	
Counties	Jan., 1925	July, 1925	Jan., 1926	July, 1926	Jan., 1927
Adams	\$ 5,534.84	\$ 4,322.84	\$ 5,484.95	\$ 4,747.31	\$ 6,634.56
Alamosa	3,252.13	2,481.63	3,156.97	2,732.40	3,819.34
Arapahoe	5,410.84	4,202.76	5,343.00	4,624.45	6,468.24
Archuleta	5,822.30	4,603.02	5,865.37	5,076.57	7,096.58
		10,246.72	12,860.67	11,131.12	15,560.73
Baca	4,114.49	3,282.15	4,173.33		5,051.38
		and the second s		3,612.08	
Boulder	6,763.55	5,363.52	6,813.60	5,897.28	8,242.38
Chaffee	5,275.56	4,202.76	5,314.61	4,599.88	6,431.28
Cheyenne	7,383.52	5,843.83	7,335.98	6,349.40	8,876.89
Clear Creek	William a state and a	4,282.81	5,621.22	4,865.25	7,318.35
Conejos	5,974.47	5,403.55	6,870.38	5,946.42	8,310.15
Costilla	6,425.37	5,083.33	6,472.92	5,602.42	7,829.65
Crowley	3,832.67	3,042.00	3,719.09	3,218.93	4,503.12
Custer	5,410.84		5,450,88	4,717.82	6,597.60
Delta	6,763.55	5,363.52	6,813.60	5,897.28	8,248.54
Dolores	4,249.76		4,082.48		4,940.50
Douglas	8,736.24	6,924.54	. 8,630.56	7,469.89	10,447.75)
Eagle	7,214.45	5,803.81	7,404.11	6,408.37	8,956.97
Elbert	6,143.55		7,239.45	6,265.86	8,759.84
El Paso	13,865.20	11,207.35	14,115.51	12,217.20	17,076.15
Fremont	9,694.42	7,685.04	9,766.16	8,452.77	. 11,815.32
Garfield	8,623.52	6,844.49	8,687.34	7,519.03	10,509.35
Gilpin	1,972.70	1,561.03	1,987.30	1,720.04	2,402.49
Grand	10,596.20	8,405.52	11,100.49	9,607.65	13,429,30
		10,126.65	12,906.09	11,170.43	Production and
Gunnison	12,738.00	2,161.42	2,759.51	2,388.40	15,616.17
Hinsdale	3,152.82				3,338.84
Huerfano	6,910.10	5,483.60	6,847.67	5,926.76	8,149.98
Jackson	7,890.80	6,244.10	7,807.25	6,757.30	9,449.79
Jefferson	12,118.00	9,486.22	12,145.24	10,511.90	14,679.82
Kiowa	8,341.70	6,604.33	8,289.88	7,175.02	10,028.85
Kit Carson	9,807.14	7,765.10	9,879.72	8,551.05	11,950.84
Lake	4,509.02	3,562.34	4,457.23	3,857.80	5,390.20
La Plata	5,630.65	4,643.05	5,899.44	5,106.06	7,139.70
Larimer	14,485.20	11,767.72	14,734.31	12,752.87	17,704.49
Las Animas	14,220.30	11,247.38	14,325.56	12,399.03	17,470.42
Lincoln	18,092.40	14,329.40	18,226.28	15,775.22	22,053.62
Logan	8,792.60	6,964.57	8,857.68	7,666.46	1 10,718.80
Mesa	12,399.84	9,806.43	12,491.60	10,811.68	15,117.20
Mineral	3,838.31	3,001.97.	3,866.72	3,346.70	4,681.87
Moffat	10,427.10	8,245.41	10,504.30	9,091.64	12,708.55
Montezuma	7,964.08.		. 8,023.01	6,944.05	9,825,56
Montrose	12,118.00	9,526.25	12,094.14	10,467.67	16,398.53
Morgan	7,721.70	5,963.90	7,284.87	6,305.17	8,193.10
Otero	4,813.39		4,701.38	4,069.12	5,685.89
Ouray	2,818.15	2,241.47	2,839.00	2,457.20	3,400.44
Park	13,019.80	10,326.77	13,116.18	11,352.26	14,839.99
Phillips	4,790.83	3,802.50	3,747.48	4,177.24	5,839.89
Pitkin	3,040.30	4,082.68	5,166.98	4,472.10	6,252.63
Prowers	11,441.65	9,005.92	11,111.85	9,617.48	13,447.78
Pueblo	11,216.20	8,885.83	11,253.80	9,740.34	13,614.10
Rio Blanco	13,868.60	9,406.17	11,980.58	10,369.38	14,495.02
Rio Grande	4,993.75	3,962.60	4,922.83	4,260.78	5,956.94
Routt	9,863.50	7,805.12	9,822.94	8,501.91	11,784.51
Saguache	9,733.87	7,725.07	9,805.91	8,487.17	11,864.60

### SCHEDULE S-Continued

#### DISTRIBUTION OF ROAD TAX TO COUNTIES

Counties	Jan., 1925 July, 1925 Jan., 1926	July, 1926 Jan., 1927
San Juan	\$ 2,665.97 \$ 2,041.34 \$ 2,572.13	\$ 2,226.22 \$ 3,110.92
San Miguel	8,510.80 6,444.23 8,176.32	7,076.73 9,893.32
Sedgwick	. 3,719.95 2,921.92 4,826.30	3,243.50 4,533.93
Summit:::	. 5,298.10 4,202.76 5,337.32	4,619.53 6,455.92
Teller	. 6,030.82 4,763.15 5,905.12	5,110.97 7,145.86
Washington :::	: 14,767.00 11,607.62 14,779.83	12,792.18 17,704.49
Weld	: 18,419.30 14,609.59 18,652.13	16,143.80 22,774.36
Yuma	: 12,681.60 10,046.59 12,775.50	11,057.40 17,279.44
12 612,02	· · · · · · · · · · · · · · · · · · ·	GLUL

Totals.....\$504,229.45 \$400,262.69 \$507,204.05 \$438,993.39 \$616.022.82 Totals...... \$904,225.45 FROME SCHEDULE T MISCELLANEOUS CREDITS

00.114.202.2 TE.217.561.2 STUDIOT1925			220
LANCE PROPERTY AND AND ADDRESS OF	Fees	Taxes	Total
Erroneous and Duplicate Charges	\$5,984.59	\$ 68,623.59	\$ 74,608.18
Miscellaneous Refunds	408.77	2,010.57	2,419.34
Government and R. R. Sales	39.19	5,220.82.	5,260.01
Government and R. R. Sales	608.49	10,693.60	11,302.09
Bankruptcy Cases		1,516.35	1,516.35
Bankruptcy Cases	2,058.38	42,408.94	44,467.32
3 TO 1926	\$9,099.42	\$130,473.87	\$139,573.29
dallana Net Catterr			
satur 0000 ennegali betteri 1926			
se. 10.227.0 \$ 570,342,57	. Feese	Taxes fet	Total."
Erroneous and Duplicate Charges!	\$1.075.01	\$ \$ 21,258.06	\$ .22,333.07
Miscellaneous Refunds			
Government and R. R. Sales	:: 27.26	10,399.31	10,426.57
Shipments Out of State	703.36	11,935.38	12,638.74
Adjustments and Cancellations	:: 7.481.59	1 . 79.379.33	\$6.860.92
er. 10.512.71 232.685.33	. <u>. 8361 . 1930</u>	a very of ers	1780, 19t. 1
Totals	\$9,429.80	\$131,793.12	\$141,222.92
Totals			

	\$2.	22.244.23	0.01010.825	2222 The	Mov. Spin,	ot 1216 381 .08.1
	NOTE:	The above	items cover	Miscellaneous	Creditsoas	shown on Sched-
ules	C; D, E	, F and G.	.005.882	1824 100.	Mov. 20th.	Sec. 186, 1923 to
	76.	22.012.11	615,125	3925317	Mide. 2018.	at 19281 Jul all
	24	40,914,35	546.179	3586130.	Nov. 36th.	Toc. 18t, 1925 to

NOTE: The above statement includes all costs incoment incident to the collection of Casolino Taxes subsequent to 1919.

## EXHIBIT A

## COLLECTION OF INSPECTION FEES AND GASOLINE TAX, 1913 TO 1926

	Inspection Fees	Gasoline Taxes	Total
1913	.\$ 9,660.91		\$ 9,660.91
1914	. 15,692.69		15,692.69
1915	. 20,457.38		20,457.38
1916	. 25,410.22		25,410.22
1917	. 37,083.99		37,083.99
1918	. 40,878.27		40,878.27
1919	. 46,177.74	\$ 274,401.06	320,578.80
1920	. 50,889.43	478,566.59	529,456.02
1921	. 60,018.93	567,947.18	627,966.11
1922	. 61,260.64	650,243.64	711,504.28
1923	. 73,346.10	846,333.12	919,679.22
1924	. 110,719.54	1,725,957.23	1,836,676,77
1925	. 105,181.43	1,864,521.05	1,969,702.48
1926	. 119,193.38	2,144,718.57	2,263,911.95

\$775,970.65 \$8,552,688.44 \$9,328,659.09

#### EXHIBIT B

## COMPARATIVE STATEMENT OF INSPECTION COSTS 1913 TO 1926

	Gallons Inspected	Net Expense	Cost per 1000 Gals.
May 21st, 1913 to Nov. 30th, 1914	16,233,093	\$ 8,733.02	.54
Dec. 1st, 1914 to Nov. 30th, 1915	20,153,025	3,646.86	.18
Dec. 1st, 1915 to Nov. 30th, 1916	24,771,822	7,646.87	.31
Dec. 1st, 1916 to Nov. 30th, 1917	36,434,570	7,270.67	.19
Dec. 1st, 1917 to Nov. 30th, 1918	41,468,441	8,111.60	.18
Dec. 1st, 1918 to Nov. 30th, 1919	48,805,769	17,376.02	.35
Dec. 1st, 1919 to Nov. 30th, 1920	58,153,226	17,376.01	.29
Dec. 1st, 1920 to Nov. 30th, 1921	72,096,708	24,344.32	.33
Dec. 1st, 1921 to Nov. 30th, 1922	74,626,073	24,344.33	.32
Dec. 1st, 1922 to Nov. 30th, 1923	82,483,381	21,593.44	.26
Dec. 1st, 1923 to Nov. 30th, 19241	02,784,400	21,593.45	.21
Dec. 1st, 1924 to Nov. 30th, 19251	11,015,425	41,290.38	.37
Dec. 1st, 1925 to Nov. 30th, 19261	20,546,179	40,914.35	.34

NOTE: The above statement includes all costs incurred incident to the collection of Gasoline Taxes subsequent to 1919.

## EXHIBIT C

## SOURCE OF GASOLINE SUPPLY For the Years 1913 to 1926

	1.913	1914	1915	1916	1917	1918	1919
California	29,849			14,736			
Colorado	407,622	416,560	332,168	395.035	3,546,823	5,701,883	6,454,277
Kansas	1,089,356	2,573,449	2,255,127	2,494,058	4,641,656	4,486,988	6,132,237
Missouri	318,586	12,199			49,144	75,015	12,974
Nebraska		37,645	26,470	36,058	42,494	29,935	182,754
New Mexico							
Oklahoma		615,280	1.439.072	2,430,933	4,021,819	6,900,589	10,432,605
Texas		5,300	1,500	2,319			58,661
Utah							
Wyoming		6,711,805	10,428,292	14,614,862	17,577,217	15,606,500	19,088,042
						10,000,000	
	5,860,855	10,372,238	14,482,629	19,988,001	29,879,153	32,800,910	42,361,550
	1920	1921	1922	1923	1924	1925	1926
California				58,217	215,050	269,749	187,409
Colorado	6,610,291	5,222,884	7,019,477	7,010,704	10,282,726	5,659,669	9,555,417
Kansas1	0,528,273	14,942,981	7,065,370	7,391,348	5,953,767	9,819,345	6,844,453
Missouri	79,505	391,526				16,002	
Nebraska	49,111	36,819	32,075	90,315	53,577	21,698	35,539
New Mexico						1.350.223	2,014,429
Oklahoma1	4,175,711	16,442,353	6,485,613	14,964,480	19,068,947	18,986,618	19,276,048
Texas		3,480,976	2,450,740	1.334.482	676,155	801,184	945.848
Utah						86,139	101,459
Wyoming		19,873,153	42.837.945	44,408,857	57,781,544	61,730,674	73,419,707
5	1,917,098	60,390,692	65,891,200	75,258,403	94,031,766	98,741,301	112,380,309

STATE INSPECTOR OF OILS

35

#### EXHIBIT D

	Motor Vehicles Registered	Per Cent Increase		Gasoline Consumption	Per Cent Increase	Av. Gallonage Per Machine
1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925	$\begin{array}{c} 21,439\\ 31,836\\ 48,027\\ 71,355\\ 87,116\\ 108,501\\ 130,913\\ 148,607\\ 165,098\\ 191,429\\ 215,473\\ 241,959\end{array}$	48,49 50,86 48:57 22.09 24.55 20,66 13.52 11.10 15:95 12:56 12:29 5.26	34,225'368 25'800'816	$\begin{array}{c} 10,372,228\\ 14,482,629\\ 19,988,001\\ 29,879,153\\ 32,800,910\\ 42,361,550\\ 51,917,098\\ 60,390,692\\ 65,891,220\\ 75,258,403\\ 94,031,766\\ 98,741,301\\ 112,380,309\\ \end{array}$	39.63 38.01 49.49 9.78 29.15 22.56 16.32 9.11 14.22 21.33 5.01 13.81	$\begin{array}{c} 483.8\\ 4554.9\\ 416.2\\ 418.7\\ 376.5\\ 390.4\\ 396.6\\ 406.4\\ 399.1\\ 393.1\\ 423.8\\ 408.1\\ 408.1\end{array}$
1926	254,693	0.20		112,000,000	10.01	441.2

### GASOLINE CONSUMPTION IN COMPARISON TO NUMBER OF REGISTERED MOTOR VEHICLES

NOTE: See explanatory letter on following page.

201 010

February

1927.

Mr. James Mullins,

Notatata S

872.3273

SECULT 011110 P.S.L.

Denver, Colorado.

10 10 10

TITA Dear Sir: 10 m Replying to your request for a reason for the apparent fluctu-

ation of the amount of gasoline used per car in the State.

14,814,5

The years 1918, 1919 and 1920 represent years of considerable financial depression, owing to war conditions.

The increase in the years 1924; 1925 and 1926 arose from four 573 100 573 causes : 202

The better financial condition of the State. 1st.

2nd. The greater facilities for travel provided by improved roads. This is especially true in the mountain districts.

3rd. The introduction of the closed car, which is fast becoming general and enables the owners to use them during the winter season with a minimum of discomfort.

4th. The increasing number of heavier and more powerful cars.

Faithfully yours,

(Signed) JAMES DUCE,

State Inspector of Oils. -30 Son Rason

#### EXHIBIT E

February 4, 1927.

Mr. James Mullins,

Denver, Colorado.

Dear Sir:

The original act levying the one cent tax gave this department no powers to enforce collection other than those relating to common debts.

The constitutionality of this act was contested and we went three times to the State Supreme Court and once to the United States Supreme Court and won all cases.

During this time we had forty-seven suits pending which, owing to a constitutional question being involved, the attorneys were unable to bring to an issue.

While these cases were pending in the courts, dealers continued to receive shipments of gasoline and we had no power to prevent them, and as a result, the claims of the State continued to increase.

By the time these matters were settled by the Supreme Court many of the dealers who had been repeatedly advised by their attorneys that the tax was undoubtedly unconstitutional and could never be collected, were unable to pay and we were confronted with either forcing them into bankruptcy or accepting payments in installments.

This is the explanation of the accounts now carried under the heading "Suspense Accounts."

Faithfully yours,

(Signed) JAMES DUCE, State Inspector of Oils.

#### EXHIBIT F

February 2, 1927.

Mr. James Duce,

State Oil Inspector,

Capitol Building, Denver.

## Dear Sir:

Below is a report showing the number of tests made in the Oil Laboratory for the year 1926.

Gasoline tested	15,340
Check tests on gasoline	822
Fractional distillations	115
Gasoline improvers tested	
Heat determination on fuel oils	25
Lubricating oils tested	150
Linseed oil	40
Turpentine	12
Paint	27

Yours very truly,

J. A. HUNTER.

## 1925-1926

# SUMMARIZED WORK REPORT OF THE BOUL-DER LABORATORY IN CO-OPERATION WITH THE UNITED STATES BUREAU OF MINES

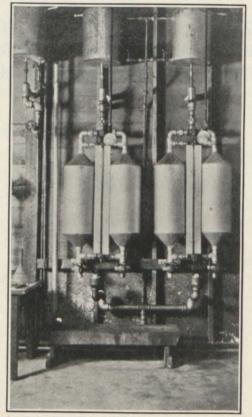
JOSEPH W. HORNE, Associate Chemist in Charge

## INVESTIGATION OF OIL SHALE RETORTS AND REFINERIES

M. J. Gavin, Refinery Engineer. Jos. W. Horne, Associate Oil Shale Chemist.

#### Purpose of the Investigation:

The purpose of this work is the investigation of retorts and processes in the United States and foreign countries used for the extraction of oil from shale. Reports of various shale companies are collected and when possible a personal inspection is made. All data is filed for reference. The problem is continuous.



Experimental Shale Oil Refinery. Twin separatory and measuring tanks. The system is always closed to forced uncondensed gases through auxiliary ice water condenser.

## Progress of the Investigation:

1925. During the past year three retorts were investigated, viz.: the retort designed by Mr. O. S. Bowman of the Heliopore Engineering Laboratories, Colorado Springs, Colo.; the Lamb retort operated in Denver, Colo.; and the N-T-U retort operated by the N-T-U Company near Casmalia, Calif. Mr. Gavin has reported favorably on the N-T-U retort, and developments on the Bowman and Lamb retorts are being observed. This work continues from year to year.

1926. Personal inspections were made of the Scottish and French retorting plants and refineries, also of an American retort operating in California. Valuable data was secured for use of the Government engineers constructing the shale retorts in the Naval Reserve in Colorado. Two refining processes were investigated and tested in the laboratory.

Two retorting plants, the Washington and the Index, on properties joining the Naval Reserve in western Colorado were inspected and found to be of such an experimental type as to have no commercial value.

The notorious Hartman Shale Company holdings were examined by the Bureau and found to be valueless except for the timber growing on their land.

Many requests for information concerning oil shale and allied subjects were answered during the period.

## REFINING OF SHALE OIL AND ITS PRODUCTS

J. W. Horne, Chemist.W. L. Finley, Chemist.J. M. Davidson, Chemist.

#### Purpose of the Investigation:

The problem consists of a comparative study of the methods of refining to determine the most efficient process for commercial practice and also to determine the physical and chemical properties of the crude oil and refined products. Experiments were made to develop and improve refining methods.

## Progress of the Investigation:

Standard American petroleum and Scottish shale ail methods of refining were tried. A great many experiments were made with refining agents in search of improved processes. An improvement on the Scottish treatment was made. Some of the experiments indicated that further improvements could be made.

Blends of the separated fractions obtained by distillation were made which conformed to the Government specifications for motor fuel.

These blends were refined, producing a gasoline of a market-

able character. The losses in refining were about 50% less than by the Scottish methods.

It was found that refined gasoline contained about 27% unsaturated compounds which was valuable for the "anti-knock" quality they possess.

A short study was made of the effects of ultra-violet rays on refined gasoline and a brief report was written on this experiment.

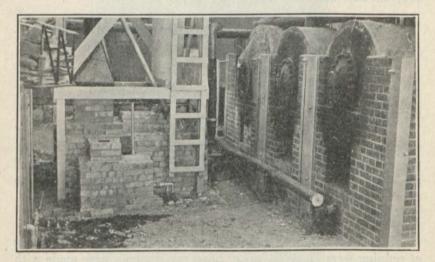
A complete summary of all the work done prior to the operation of the refinery is being prepared for publication.

## DISTRIBUTION OF NITROGEN AND SULPHUR IN OIL SHALE AND SHALE OIL

W. L. Finley, Assistant Organic Chemist. D. W. Gould, Assistant Oil Shale Chemist.

#### Purpose of the Investigation:

The object of these investigations was to determine the comparative percentage of nitrogen and sulphur in representative American oil shales and the oil produced from them.



Experimental Shale Oil Refinery. Side view of assay still, and end view of 3, 5, and 10 bbl. stills.

## Progress of the Investigation:

1925. Some compounds were separated but their identity was not definitely established nor an accurate estimate of their quantity determined. The percentage of completion is indefinite. Further work is outlined for the ensuing year.

42

1926. After a year's experimentations with various types of retorts, a small electrically heated rotary retort was selected for the work. The nitrogen and sulphur content of the shales and oils was then accurately determined.

A report of this work has been prepared for publication.

## STUDY OF NITROGEN COMPOUNDS

#### J. M. Fulmer, Assistant Organic Chemist.

#### Purpose of the Investigation:

Shale oils were examined for the presence of nitrogen compounds which would have commercial value.

## Progress of the Investigation:

Little work has been done on this problem. It has been found that the nitrogen compounds in shale oil were different or more numerous than those in petroleum, and may exist in commercial quantities. Pyridine, which has a market value as an insecticide, was isolated. Owing to an insufficient quantity of oil to use, work on the problem was postponed until such time as a greater supply of crude oil and condenser water could be obtained.

## DISTRIBUTION OF NITROGEN IN SHALE OIL AND ITS PRODUCTS

## W. L. Finley, Chemist. W. W. Purdy, Chemist.

#### Purpose of the Investigation:

The purpose of the investigation is the determination of the per cent nitrogen and sulphur in shale oil and its products. Methods and rates of evolving the oil are varied and the oils so produced are then tested. Both nitrogen and sulphur interfere in refining so that the estimation of these elements and their compounds is necessary.

#### Progress of the Investigation:

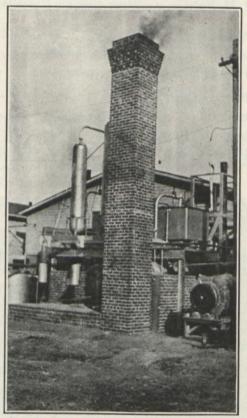
Oils from typical shales in the West have been tested. Definite relations between per cents nitrogen and sulphur in the oil according to the rates of retorting have been established. Effort is being made to isolate as many of the organic forms of nitrogen and sulphur as possible. The work is far from complete.

## EXTRACTION OF KEROGEN WITH SOLVENTS

J. M. Fulmer, Chemist. J. M. Davidson, Chemist.

## Purpose of the Investigation:

An attempt was made to discover a solvent which would remove the kerogen from the shale without destroying its valuable properties.



Experimental Shale Oil Refinery. Rear view of plant, continuous filters with burners on the right.

## Progress of the Investigation:

Alcohols, carbon tetrachloride, carbon bisulphide were used. Shales were digested with each respective solvent for four consecutive weeks without dissolving any appreciable amount of the kerogen. Acetic acid, however, removed 40% of the organic matter, but altered the composition of the hydrocarbons. Pyridine has a solvent action, removing some of the hydrocarbons without destroy-

#### STATE INSPECTOR OF OILS

ing them. A study of these compounds is now being made. As soon as this work is completed the report will be published.

#### ANALYSIS OF KEROGEN

J. W. Horne, Chemist. B. A. Landry, Chemist.

J. M. Davidson, Chemist.

#### Purpose of the Investigation:

The purpose of the investigation was to determine by chemical and combustion analysis the elements of which kerogen is composed and as far as possible to establish the manner in which these elements are combined with each other. (Kerogen is the organic substance which when heated is converted into oil.)

#### Progress of the Investigation:

Successful combustion analyses were made on the kerogens from Scottish, Australian, Nevada, Utah, Colorado, Kentucky and Indiana shales. Conclusions of this work are being prepared for publication.

## SEPARATION OF KEROGEN

J. M. Fulmer, Chemist.J. M. Davidson, Chemist.W. W. Purdy, Chemist.

#### Purpose of the Investigation:

Purpose of the investigation was to discover solvent or some other means of removing the kerogen from the shale without changing its composition. Analysis of the pure kerogen will then be made.

#### Progress of the Investigation:

A satisfactory method using hydrochloric and hydrofluoric acids as a solvent for the mineral and siliceous constituents of the shale apparently freed the kerogen, leaving it in its natural state. Conclusions of the work are being prepared for publication.

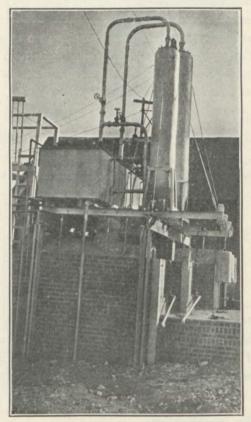
Kerogen is the organic substance which when heated becomes oil.

## WEATHERING TESTS ON OIL SHALES

W. L. Finley, Assistant Organic Chemist.

#### Purpose of the Investigation:

The purpose of this investigation was to determine the effect of atmospheric weathering on the yield and quality of oil from shale crushed to definite sizes and exposed for stated periods of time. Also to estimate any change in the oil content, due to weathering, in the shale beds which would effect their commercial value.



Experimental Shale Oil Refinery. Side view of plant showing towers, vapor lines, condensers, pyrometers and steam lines.

## Progress of the Investigation:

Tests for yield and analysis of the oil were made at intervals of six months for a period of four years.

This work has been concluded and a report prepared for publication.

## EXPERIMENTAL RETORTING

Jos. W. Horne, Associate Oil Shale Chemist.D. W. Gould, Assistant Organic Chemist.W. L. Finley, Assistant Organic Chemist.

## Purpose of the Investigation:

These experiments were conducted to determine the action of non-combustible or non-oxidizing gases on the oil during the retorting period.

## Progress of the Investigation:

1925. The original problem with this retort is practically complete and a paper giving results of these experiments is being prepared. However, it is planned to continue the use of the vertical retort on a similar problem using shale from the Pilot plant.

1926. An electrically heated retort, the operation of which could be accurately controlled, was used in making these experiments. The gases used in the tests were hydrogen, nitrogen, carbon dioxide, water gas from the city main and steam. Excellent samples of oil were secured and analyzed.

The results of this work are being prepared for publication.

## ASSAY RETORTING STUDIES

## W. L. Finley, Assistant Organic Chemist.

## Purpose of the Investigation:

This problem is continuous and consists of accurately testing samples of oil shales and coal for oil and gas yield. Many of the samples come from newly located shale beds. Coals are also tested for their heat value.

## Progress of the Investigation:

1925. This investigation is continuous, the assay retort being used whenever it is desired to determine the oil and gas yield of a shale or coal. The assay will be extensively used in connection with the shales used at the Pilot plant.

1926. A great many assays were made during the year. Samples from shale beds not previously tested were received from Kentucky, Texas, Oklahoma, Ohio, Montana and Utah. Also foreign shales and oil from Manchuria and Esthonia.

## STEAM RETORTING

J. W. Horne, Associate Oil Shale Chemist.

B. S. Landry, Assistant Organic Chemist.

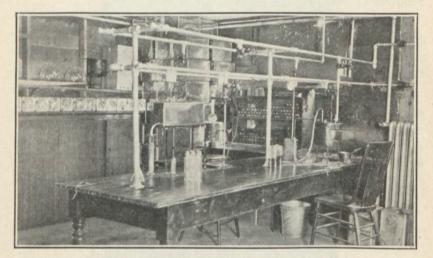
L. C. Karrick, Associate Refinery Engineer.

A. D. Bauer, Associate Scientist.

D. W. Gould, Assistant Oil Shale Chemist.

## Purpose of the Investigation:

The object of this investigation was to determine the efficiency of using superheated steam in a specially designed retort, for retorting shale, and to study the character of the oil produced by it.



Experimental Shale Oil Refinery. Control Laboratory.

## Progress of the Investigation:

1925. It has been demonstrated that superheated steam will evolve oil from oil shale. The experiments required the design of a special retort which will have to be altered to determine the efficiency of superheated steam. The problem is about 75 per cent completed. A paper will be prepared discussing the work.

1926. The original design of the superheater was altered to increase the flow of superheated steam and to give a more uniform and higher temperature in the retort. A small quantity of excellent oil was secured. The shale being used clinkered in the retort, making operation impossible, and it was decided to discontinue the experiment until a shale entirely free of that coking quality could be secured. A retort of similar design was made to produce low temperature coke and coal tar suitable for motor fuel.

#### STATE INSPECTOR OF OILS

## COKING PROPERTIES OF OIL SHALES

## W. L. Finley, Chemist.

#### Purpose of the Investigation:

The purpose of the investigation was to determine the extent to which shales will coke during retorting operations, and the best ways of retorting to prevent the shale clinkering in the retort.

#### Progress of the Investigation:

1925-26. The problem has been completed and a paper on the subject published.

## REPORTS OF INVESTIGATION

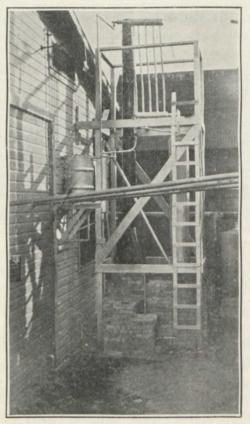
The following reports of investigation for the years 1925-1926 have been prepared for publication:

Tested in the Colorado Laboratory.....Being written Manual of Testing Methods for Oil Shale and Shale Oil..Published

#### PROGRESS OF THE SHALE OIL REFINING SECTION

Work was begun on the construction of a semi-commercial refinery for shale oil under an agreement of November 1, 1926, signed by the Secretary of Commerce and the Governor of Colorado. This refinery is to be located at the State University at Boulder. By this agreement the State is to provide \$10,000 for installed equipment, and the United States Bureau of Mines is to undertake the supervision of all work in connection with this investigation, the general method to be employed and the manner in which the results are to be published. All records of expenditures of funds, progress,

status and results, including all reports and papers, are to be accessible to both parties at all times. The technical personnel of this section consists of I. N. Beall, Engineer in Charge; H. M. Thorne and H. C. Long, Assistant Engineer and Chemist, respectively. With a few minor details this refinery is practically complete at the present time. Stills, towers, condensers and all of the equipment necessary for the refining and treating of shale oil have been installed. This refinery is capable of handling ten barrels of shale oil per day, and is so hooked up that it is possible at a minimum expense to convert it into a continuous refinery capable of handling 75 barrels per day. The attached photographs will serve to give an idea of the construction details.



Experimental Shale Oil Refinery. Side view of 10 gallon charge assay still, and 2 gallon analytical still.

#### Purpose of the Investigation:

The purpose of this investigation is to study the refining property of oil obtained from Pumpherston and N-T-U retorts located

#### STATE INSPECTOR OF OILS

at the Government Plant at Rulison, Colorado; to determine the proper procedure in order to assign the maximum commercial value to a barrel of shale oil and to gather systematic data concerning the chemical and physical properties of the material. The oil is shipped in 50-barrel lots of 25 barrels each from the two different types of retorts. The work of refining the oil was started on January 26, 1927. Although the primary purpose of this investigation was to determine maximum gasoline, Diesel and fuel oil percentage of shale oil and other products such as are from petroleum, yet at the present time the investigation serves a duofold purpose inasmuch as it is located at the State University, where the students who are interested can have an opportunity to obtain information first-hand of this embryo industry which has such great potential possibilities for the State of Colorado. Should shale refining become an industry in this State there would be a scarcity of trained men, and unless some steps are taken to provide for such an emergency it would be necessary to import foreigners to do the work. In addition to the aforementioned, this experimental, semi-commercial refinery can be used for the study of crude oils and coal tars. The State of Colorado evidently has a wealth of coal of many varieties and apparently has her petroleum reserves untouched. It is an advantage to Colorado to know the value of her undeveloped resources.

## TECHNICAL STAFF OF THE CO-OPERATIVE OIL SHALE RESEARCH LABORATORIES, BOULDER, COLORADO,

#### 1925-1926

A. D. Bauer, Engineer in Charge, 1925. U. S. Bureau of Mines. Transferred.

J. W. Horne, Engineer in Charge, 1925-27. U. S. Bureau of Mines.

W. L. Finley, Organic Chemist, 1925-26. State of Colorado. Resigned.

B. A. Landry, Assistant Chemist, 1925. State of Colorado. Transferred to Bureau.

J. M. Fulmer, Organic Chemist, 1926. State of Colorado. Resigned.

J. M. Davidson, Organic Chemist, 1926-27. State of Colorado.

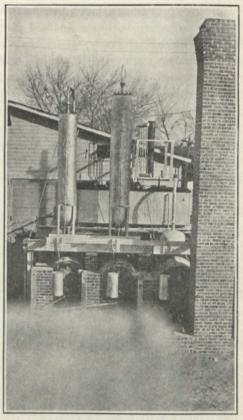
W. W. Purdy, Organic Chemist, 1926-27. State of Colorado.

D. W. Gould, Organic Chemist, 1925-27. State of Colorado. State representative at the Government Retorting Plant.

## TECHNICAL STAFF OF THE CO-OPERATIVE SHALE OIL REFINERY, BOULDER, COLORADO, 1926

I. N. Beall, Refinery Engineer in Charge, U. S. Bureau of Mines.

Harold Thorne, Assistant Engineer, U. S. Bureau of Mines. H. C. Long, Assistant Engineer, U. S. Bureau of Mines.



Experimental Shale Oil Refinery. View of Stills, Towers, and Condenser Lines.

GOVERNMENT OIL SHALE PLANT Rulison, Colorado

M. J. Gavin, Refinery Engineer.J. S. Desmond, Associate Chemical Engineer.D. W. Gould, Organic Chemist, State Representative.

In the spring of 1925 an appropriation was made for the building of a semi-commercial oil shale retorting plant on the Naval Reserve in Colorado. The purpose of this plant is to put into practical use information gained during the past five years in the co-operative laboratory at Boulder.

A single unit of the Pumpherston retort was imported from Scotland and an American retort known as the N-T-U with a capacity of 20 tons per day have been erected. A mine has been opened and a tramway constructed for use of the retorts between the mines and the retorting plant.

Both retorts are now in operation and oil is being produced for the refining operations to be conducted at the co-operative refinery at Boulder.

The congressional appropriation was for \$180,000 to cover a two-year program which closes June 30, 1927.

To assist the work the State arranged for the building of a trail between the retorts and the shale mine and the county in which the work is being done constructed a road from the highway to the plant.

			Misc'l U. S. Govt. Railroads Export		RECAPIT	ULATION O	F STATIST	ICS 1926		Cash Refunds By					
Gross Gals. Inspected	Duplicate Charges of Gals.	Net Gals. Inspected	Gallons Exempted From Tax	Gallons Exempted by Cash Refunds	Total Gals. Refunded	Net Gals Gasoline Taxed	Net Gals. R.O. Inspected	R.O. Paid to State Treasurer		State Aud. Board Tax	Net Collections Fee Tax		Net Expense	% Per 1,000 Gals.	Expense Per \$1.00 Col.
December	155,679	7,668,717	84,261	153,729	237,990	7,430,727	9,508 641,426	\$ 13,434.82	\$ 153,835.73	\$ 3.074.59	\$ 13,434.82	\$ 150,761.14	\$ 3,475.62	4 1/10	2 8/10
January 6,549,536	32,713	6,516,823	203,562	84,170	287,732	6,229,091	547,565	6,479.89	120,008.56	1,683.40	6,479.89	118,325.16	3,030.11	4 2/10	2 4/10
February	73,471 87,476	6,462,276 7,452,244	48,615 140,308	167,055 164,607	215,670 304,915	6,246,606 7,147,329	6,567 628,760 743,799	6,382.63 8,155.72	128,071.83 153,250.84	3,341.09 3,292.15	6,382.63 8,155.72	124,730.74 149,958.69	3,474.35 3,464.00	4 8/10 4 2/10	2 6/10 2 8/10
April 8,719,431	86,070	8,633,361	70,019	220,160	290,179	8,343,182	<b>12,168</b> 906,856	6,919.65	133,426.34	4,403.20	6,919.65	129,023.14	3,284.41	3 4/10	2 3/10
May 9,831,433	51,704	9,779,729	97,730	850,658	948,388	8,831,341	16,309 858,328	9,500.16	171,095.78	17,013.07	9,500.16	154,082.71	3,233.98	3%	1 8/10
June 10,170,456	133,645	10,036,811	139,538	308,612	448,150	9,588,661	18 768,437	10,358.19	207,874.60	6,172.24	10,358.19	201,702.36	3,742.53		
July 11,460,238	72,190	11,388,048	111,388	1,838	113,226	11,274,822	6,914 671,561			36.76	10,423.23	197,421.80		3 4/10	1 7/10
August 12,612,084	94,945	12,517,139	144,725	279,428	424,153	12,092,986	7,992	10,423.23	197,458.56		11,485.22		3,523.15	2 8/10	1 6/10
September	101,963 53,583	11,737,350 9,883,971	151,199 141,178	162,756 289,094	313,955	11,423,395	802,618 1,724 726,209	11,485.22 12,899.04	208,736.90 241,034.99	5,588.55 3,255.13	12,899.04	203,148.35 237,779.86	3,469.12 3,480.02	2 6/10 2 7/10	1 5/10 1 4/10
November 9,083,051	144,126	8,938,925			430,272	9,453,699	572,618 8,090	12,355.55	232,942.55	5,781.88	12,355.55	227,160.67	3,256.91	3%	1 3/10
			242,263	192,795	435,058	8,503,867	575,043	10,799.28	197,134.25	3,855.90	10,799.28	193,278.35	3,480.15	3 6/10	1 6/10
Total, Fiscal Year 1926112,102,959	1,087,565	111,015,394	1,574,786	2,874,902	4,449,688	106,565,706	8,392,946	\$119,193.38	\$2,144,870.93	\$57,497.96	\$119,193.38	\$2,087,372.97	\$40,914.35	3 4/10	1 8/10
December	80,678	8,021,058	121,356	237,958	359,314	7,661,754	10,237 574,874	9,389.30	178,420.87	4,759.16	9,389.30	173,661.71	3,614.62	4 5/10	1 9/10
Total, Calendar Year112,380,309	1,012,564	111,367,745	1,611,881	2,959,131	4,571,012	106,796,733	8,306,649	\$115,147.86	\$2,169,456.07	\$59,182.53	\$115,147.86	\$2,110,273.54	\$41,053.35	3 7/10	1 8/10

Deputies         Office         Laboratory         Total         Loss activity         Office         Travel         Equipment         Expense         Gross Total         Ref Total Fees         Gross to 64           December          \$ 900.00         \$ 1,260.00         \$ 680.00         \$ 2,840.00         \$ 213.62         \$ 373.93         \$ 494.88          \$ 3,922.43         \$ 446.81         \$ 3,475.62         \$ 13,434.82         \$ 3,922.43         \$ 9           January         900.00         1,260.00         680.00         2,840.00         4.38         145.92         382.00         \$ 40.00         3,412.30         382.91         3,030.11         6,479.89         3,412.30         3         3,284.09         2,922.43         \$ 40.00         3,412.30         382.91         3,030.11         6,479.89         3,412.30         3         3,284.09         2,902.45         5 3,922.43         \$ 90.00         1,10.00         750.00         2,760.00         19.47         255.21         705.41          3,904.75         40.07.5         3,444.40         8,155.72         3,904.75         4,07.5         3,444.40         8,155.72         3,904.75         4,07.05         3,284.41         6,19.82.63         3,284.41         6,19.82.63         3,284.41							EXPENS	ES						
1925         Deputies         Office         Imboundory         Total         Laboratory         Office         Travel         Equipment         Ergense         Expense         <					Geograpical	— Expenses—				Equip. and				Transferred
December       \$ 900.00       \$ 1,260.00       \$ 680.00       \$ 2,840.00       \$ 213.62       \$ 373.93       \$ 494.88        \$ 3,922.43       \$ 446.81       \$ 3,475.62       \$ 13,434.82       \$ 3,922.43       \$ 9         January       900.00       1,260.00       680.00       2,840.00       4.33       145.92       382.00       \$ 40.00       3,412.30       382.91       3,030.11       6,479.89       3,412.30       3,         March       900.00       1,260.00       742.50       2,902.50       13.947       259.21       705.41        3,824.09       349.74       3,474.35       6,382.63       3,824.09       3,904.75       40.75       3,464.00       8,455.72       3,904.75       4,075       3,464.00       8,455.72       3,904.75       4,075       3,464.00       8,455.72       3,904.75       4,075       3,464.00       8,455.72       3,904.75       4,075       3,464.00       8,455.72       3,904.75       4,075       3,691.49       407.06       3,232.41       6,31.49       4,24.50       3,651.49       3,233.98       9,500.16       4,166.19       3,233.98       9,500.16       4,166.19       3,233.98       9,500.16       4,166.19       3,233.98       9,500.16       4,166.19       3,412.30	1925 Depu	ties Office		Total		Office	Travel	Equipment						to General Revenue
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		0.00 \$ 1,260.00		\$ 2,840.00	\$ 213.62	\$ 373.93	\$ 494.88		\$ 3,922.43	\$ 446.81	\$ 3,475.62	\$ 13,434.82	\$ 3,922.43	\$ 9,512.39
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	February         90           March         90           April         90	0.00         1,260.00           0.00         1,260.00           0.00         1,260.00           0.00         1,110.00	680.00 742.50 750.00 750.00	2,840.00 2,902.50 2,760.00	19.47 139.01 64.15 8.71	259.21 267.29 176.51	705.41 595.95 690.83	·····	3,824.09 3,904.75 3,691.49	349.74 440.75 407.08	3,474.35 3,464.00 3,284.41	6,382.63 8,155.72 6,919.65	3,412.30 3,824.09 3,904.75 3,691.49	3,067.59 2,558.54 4,250.97 3,228.16 5,333.65
Total, Calendar Year\$10,900.00 \$14,005.00 \$3477.50 \$33,382.50 \$5,012.71 \$3,459.80 \$8,084.41 \$1,423.93 \$51,363.35 \$10,310.00 \$41,053.35 \$115,147.86 \$51,363.35 \$63.	July         90           August         90           September         92           October         92           November         92           Total, Fiscal Year 1926         \$10,87	0.00         1,110.00           0.00         1,110.00           0.00         1,115.00           5.00         1,135.00           5.00         1,135.00           5.00         1,135.00           5.00         1,135.00           5.00         1,122.00	750.00 805.00 750.00 540.00 540.00 \$88,417.50 740.00	2,760.00 2,815.00 2,810.00 2,600.00 2,600.00 \$33,337.50 2,885.00	160.94 66.87 109.15 17.31 27.04 116.38 \$5,181.96 44.37	786.56 114.04 322.01 411.19 175.76 \$3,572.31 261.42	351.59 888.01 714.35 502.20 906.25 \$7,763.27 816.02	173.83 70.53 10.00 \$1,272.03 †151.90	4,138.85 3,926.20 3.863.67 3,610.96 3,808.39 \$51,127.07 4,158.71	615.70 457.08 383.65 354.05 328.24 \$10,212.72 544.09	3,523.15 3,469.12 3,480.02 3,256.91 3,480.15 \$40,914.35 3,614.62	10,423.23 11,485.22 12,899.04 12,355.55 10,799.28 \$119,193.38 9,389.30	4,138.85 3,926.20 3,863.67 3,610.96 3,808.39 \$51,127.07 4,158.71	1,500.76 6,284.38 7,559.02 9,035.37 8,744.59 6,990.89 \$68,066.31 5,230.59 \$63,784.51

\* Survey. † Laboratory Shale.

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