

# Sumpter Valley— Oregon's Largest Dredge Operation

**B**IGGEST gold dredge in Oregon, and said to be the largest in the United States outside of California, is that of the Sumpter Valley Dredging Co., operating on Powder River a few miles below Sumpter.

Present operations began in June, 1935, following the building of the present dredge, which was constructed by a new company, using some of the machinery and equipment from an older Yuba, which worked for a number of years further upstream under the Powder River Gold Dredging Co.

The Sumpter Valley Dredging Co. has headquarters in the Public Service Building, Portland. President is W. H. Cullers, with Clayton Jones vice president, Dr. E. Harris, treasurer; and H. F. Dick, secretary.

Oscar E. Coombs, who has been dredging since 1898, is superintendent, with his son, Bruce A. Coombs, as dredgemaster. The latter started gold dredging in 1923.

Having been dredging all their lives, and having had the opportunity of building a dredge, the Coombs have included in the Sumpter Valley boat a number of ideas of their own. For instance, the dredge was originally rated at 9 cu. ft., but Bruce Coombs worked out what he calls a "hood" and what the Columbia Steel Co., which makes the buckets, calls an

"adapter," which upped the capacity to 10 ft.

The adapter reduces the depth of the lip, which takes the wear, cutting the amount of manganese steel which must be scrapped when the lips wear down. In such abrasive ground as that on Powder River this is a real item. To this advantage is added the greater capacity, which aggregates about 30,000 yds. a month. There are 70 buckets on the line, with 24 dumped a minute. Monthly average yardage dug last year was 279,000.

The Sumpter boat is a wooden hull, 54 by 120 by 11 ft. It is electrically powered, motors generally being General Electric and Fairbanks-Morse. Connected load is 710-hp. Power arrives at 23,000 volts, stepped down at a portable transformer station to 2,300 volts for the boat.

After more than four years of continuous operation, the dredge was shut down for about 10 days late in October to receive her first overhaul. Principal replacements included new upper and lower tumblers, new main hopper and new ladder pan. In addition, a considerable footage of new riffles went in. The boat has 3,600 sq. ft. of riffles, which are made of wood with ¼-in. iron strips on top at a slight tilt.

The 10-ft. dredge of the Sumpter Valley Dredging Co., working in the Powder River valley below Sumpter, Ore. The largest dredge in the United States outside of California, this boat has a number of interesting and unusual features.

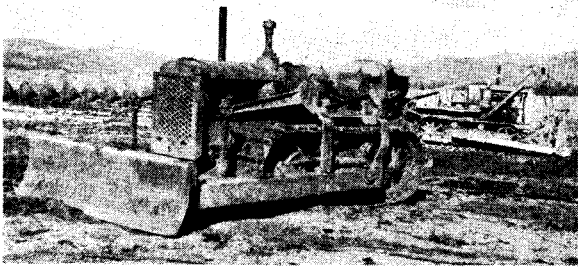
The metal sluices showing some wear on the sides just above the riffles, 3-in. strips of ½-in. iron were welded along the sides of the sluices at the bottom.

The trommel screen is 6 by 40 ft. It discharges to a Goodyear stacker belt. This stacker contains a number of features of which the Coombs are rather proud. The motor driving the stacker making things a bit crowded at the outboard end, they raised it well above the belt and set it back toward the dredge about 10 ft., installing the drive shaft and rear end of a big truck to turn the reduction gear which powers the stacker pulley.

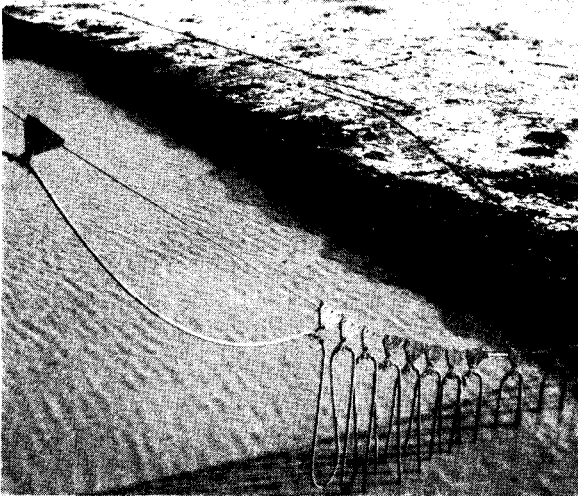
Another substantial improvement in the stacker came with raising the Link-Belt troughing idlers on 6-in. timbers, giving that much clearance between the stretchers of the roller supports and the stacker pan. At the same time, metal sideboards were raised at an angle on either side of the stacker pan, in effect producing a



Oscar E. Coombs, left, Sumpter Valley superintendent, and his son, Bruce A. Coombs, dredgemaster. Between them they have worked out some new dredge wrinkles.



Sumpter Valley uses two tractors. In the foreground, an International, armed with an Isaacson bulldozer, while in the right background is a "Caterpillar" with LeTourneau bulldozer work ashore, digging for deadmen, stripping, working in the tails, transporting heavy freight, and doing other jobs. A Ford truck provides right-now transportation.



How the power cable is brought to the Sumpter Valley dredge. There are 14 double-sheave trolley carriages from which the cable is suspended. In operation, a strain is put on the wire, which lifts the cable clear of the water, thus keeping it from icing-up in cold weather.

tight trough down which a stream of water is kept racing. It discharges into the save-all sluice, which runs the full length of the boat on the centerline.

Inasmuch as the boat digs to a false bedrock of heavy clay at about 16 to 18 ft., a lot of sticky clay comes out of the screen and the rearrangement of the stacker belt has proved of great advantage in keeping accumulations of this clay cleared away. The boat will dig to a maximum of 30 ft. below water, but 18 ft. is about the present operating bottom.

A belt drive from a 250-hp. General Electric motor powers the bucket line, while a 40-hp. G. E. motor handles the swing winch. One main pump is a 10-in. Bingham, driven by a 150-hp. Fairbanks-Morse motor. There is a 4-in. Bingham fire pump with a G. E. motor. Another large pump is a 12-in. Yuba with 100-hp. General

Electric motor, while a 40-hp. Fairbanks-Morse motor handles a 6-in. Yuba pump.

Another innovation produced by Coombs and Son is the method of bringing the power cable across the pond to the boat. Instead of the conventional means of buoying on oil drums, the power cable is suspended from a wire line by 14 double sheave trolley carriages. Putting a strain on the line lifts the cable entirely clear of the pond, which is an item when the temperatures are low.

Mr. Coombs reports that they have been able to keep the dredge running with weather as cold as 36 below zero, and have had quite a lot of 20 below weather. "It's a question of keeping her going and keeping the pond smashed up when it gets that cold," he says. "You may not dig much pay, but if you let her freeze up good and hard once you'll lose an

awful lot of time unnecessarily while things thaw out."

He ought to know the answers, because he has run dredges—gold and other kinds—pretty much all over the country, in Georgia, New York, Alaska, Louisiana, Montana, California, Idaho, Wisconsin and Oregon.

The operation uses Broderick and Bascom wire rope and Union Oil Co. lubricants. Blocks and sheaves are mostly from the Young Iron Works, Seattle. The dredge is served by an up-to-date machine shop located at the head of the dredging ground. There is a G. E. welder and Ingersoll-Rand compressor aboard. Two diesel tractors, one an International fitted with an Isaacson Iron Works bulldozer and the other a "Caterpillar" with a LeTourneau bulldozer work ashore, digging for deadmen, stripping, working in the tails, transporting heavy freight, and doing other jobs. A Ford truck provides right-now transportation.

In some portions of the operation the tailings of the Sumpter Valley dredge lie close alongside those of the old Powder River Gold Dredging Co. operation, and form a very marked contrast, as Mr. Coombs works the boat in such a manner that the tails are kept comparatively level.

In the interests of keeping Powder River in as good condition as possible, the overflow from the Sumpter Valley Dredging Co. pond is picked up in a flume, carried across the river and released behind the tailings of the old operation, which serve as a filter for the water before it returns actually to the stream. Tests have shown that the water returning to the river after being filtered through the gravel has less suspended mud than that which the company diverts from the stream for its pond.

Suit was brought against the Sumpter Valley Dredging Co. in 1939 by R. C. Lloyd of Walla Walla, who sought \$30,000 as result of damages he alleged was sustained by his property as result of silt in Powder River.

After listening to two weeks of testimony, the jury in five hours found in favor of the dredging company, clearing it of responsibility.

The Sumpter Valley company has about eight years more of dredging on its present property. The ground has been entirely drilled and values are said to run as deep as 60 ft., with gravel continuing below that depth. It is not considered practical or profitable to undertake to work the deeper material, however, and present dredging is carried down only to a false bedrock of yellow "webfoot" clay.

Sumpter  
Baker

# Dredge Mining Reaches New Peak During Current Season's Work

## Two Major Boats And Many Shovels Digging For Gold

1940 Production May Reach Million and One-Quarter Dollars

**D**REDGE MINING for gold in Eastern Oregon continues to be one of the region's major industries a survey of current operations reveals.

Baker county boasts the largest dredge in the Northwest in its Sumpter Valley Dredging company boat, located about 22 miles up Powder river from the county seat. In addition a modern dredge of considerable size is now ending its second year of work on Bull Run creek less than a mile this side of Granite just across the Grant county line.

Innumerable "doodle bug" dredges are now in operation on smaller holdings and on ground where boat dredging has been found impractical; but many of these dragline placer mines handle considerable yardage of pay dirt and are adding materially to the gold recovery of the state.

### 9000 Yards Daily

Placer ground at an estimated rate of 540,000 yards per month is being washed by power equipment and it is estimated dredge mining and placering are returning in gross revenue about a million and one-quarter dollars annually.

Largest operator in this field is the Sumpter Valley Dredging com-

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Section Two

pany, which boat has been averaging at least 9000 yards per day in recent months, going as high as 323,000 yards in one 30-day period and making 309,000 yards last month.

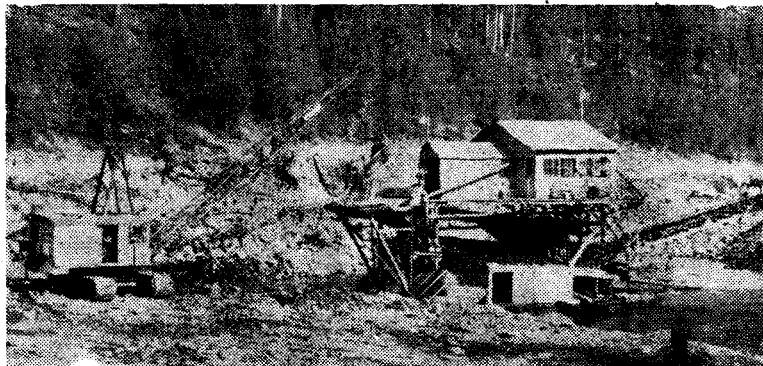
### Has Big Payroll

This dredge was launched in 1935 and began operation on July 1 of that year. The investment, all Oregon owned, amounted to about \$550,000 for plant and land and the company spends approximately \$170,000 a year, 90 percent of it in this county and the balance in Oregon in order to keep the operation going and in repair.

The company is at present employing 25 men on a payroll of \$6000 per month. The larger number of men employed this month than the regular crew of just over 20 men is due, explained W. H. Cullers, president of the company, to the testing work being carried on in the lower valley this summer.

Many years of dredging are

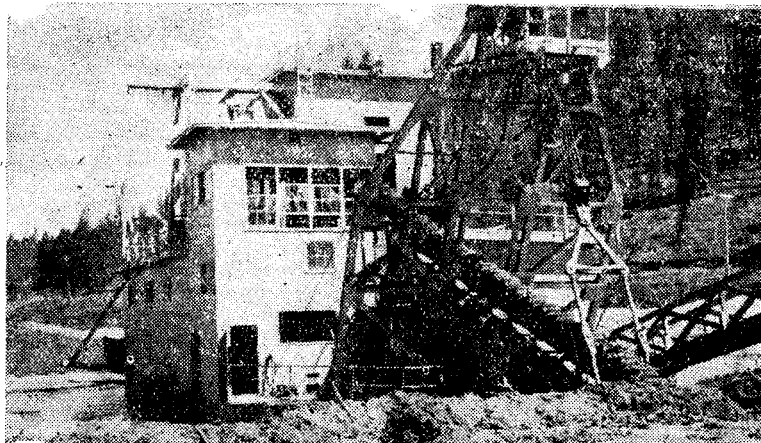
## "Doodle Bua" Shown in Action



The Record-Courier's photographer caught this "doodle bug" gold dredge in action. Notice the gravel being dumped by the electric shovel into the hopper on the floating screening, washing and sluicing plant. Gold is recovered in the riffles seen on the flat, sloping understructure of the boat and the oversize rocks and gravel are carried off by the conveyor or stacker to the right. This boat is operated by Consuelo-Oregon company on Cracker creek between Sumpter and Bourne.

# Mining Reaches New Peak

## One of Two Huge Gold Dredges

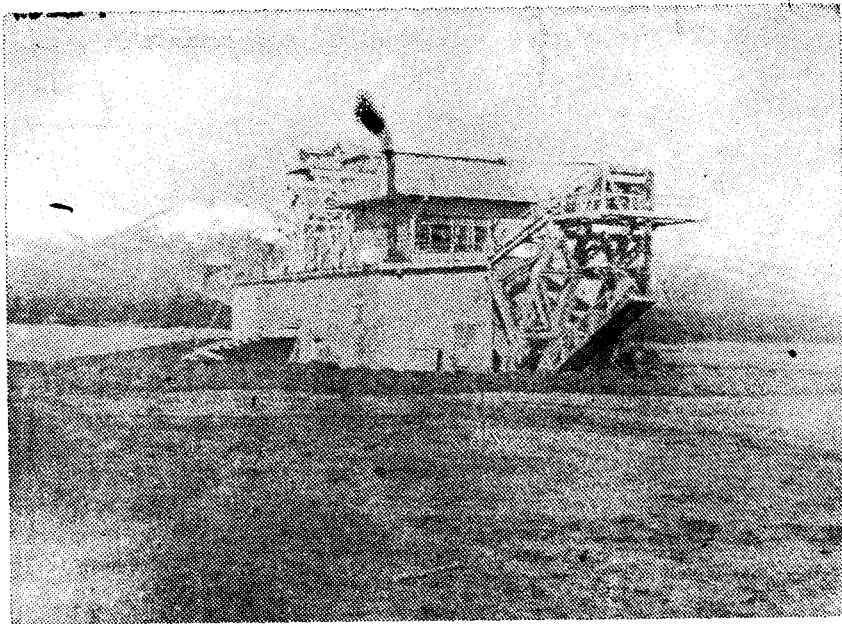


This is a view up the bucket line of the Porter & Co. 4000 yard all-steel electric dredge which is working a mile this side of Granite on Bull Run creek. The channel is 1000 feet wide and about 11 feet deep at this point. The boat has been working nearly two years in this creek and after working for several years between here and a point above Granite town on Granite creek it will work down toward mining ground held on Clear creek.

company dredge on Bull run creek.

This boat started operation September 1 of 1938. It is steel

throughout from its pontoons to its superstructure. At present it is rhining a stretch of gravel about 1000 feet wide on the creek, working down towards Granite. In months to come it will work on company ground up Granite creek to perhaps a half-mile above the town and then down to Clear



Towering peaks of Elkhorn Ridge are an impressive backdrop for big dredge.

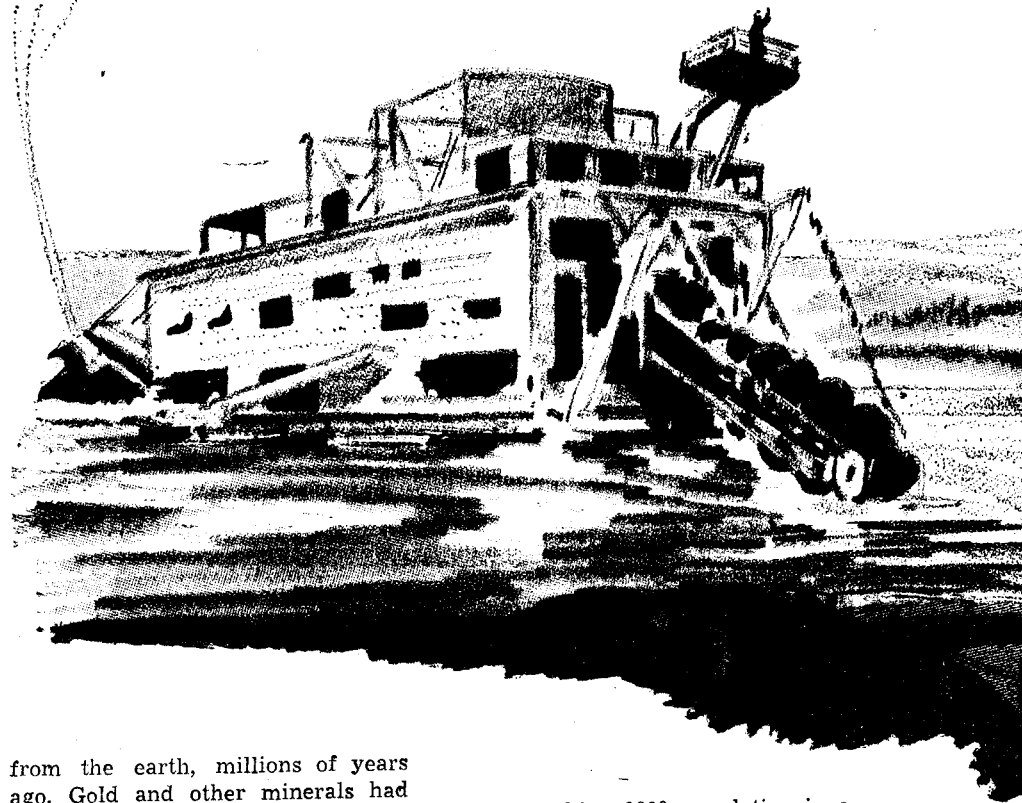
By LE ROY WILLIAMSON

**H**IGH up on the eastern slopes of the Blue mountains, confined until the end of her days in a saffron-colored pond of her own making, a queer looking vessel gnaws away at the floor of Sumpter valley. Squealing and snarling day and night, this mechanical behemoth gulps her gravelly fodder in nine cubic foot bites, digests it with a prodigious clamor and excretes the residue at her stern, piling it up in long windrows which follow her slow progress back and forth across the valley. A stranger to this otherwise peaceful countryside, voicing his wonderment at all this tumult and the presence of so strange a craft in this lofty setting is given his answer in one meaningful word—GOLD.

For this is a gold dredge; one of a fleet operating in the mountains around Sumpter, uprooting the bed of a prehistoric river in search of a treasure more fabulous than Kidd's. Three miles below Sumpter the dreadnaught of this singular mountain navy lies half hidden behind her rocky ramparts. To residents of the valley she is "The Big One," all others are "doodle-bugs." Flying no flag and showing no name to designate her home port, this drab vessel nevertheless plays an important part in our political economy. Working over ground long ago spurned as unprofitable for other methods of mining, this dredge is a marvel of efficiency in the recovery of minute quantities of gold from the enor-

from the earth, millions of years ago. Gold and other minerals had been deposited as ores in paleozoic times when great upheavals of molten rock formed towering mountain chains and displaced the great inland sea which once flooded most of Oregon. Millions of years passed and the tireless forces of erosion cut the mighty peaks down to smoothly rounded hills. More upheavals, coupled with volcanic disturbances formed the mountains into somewhat their present form some five or ten million years ago. During all this time the paleozoic rocks had been slowly disintegrat-

# There's Gold In Old Sumpter Valley



born, reaching 3000 population in a few months time. Boom towns reached maturity between daylight and dark and died as speedily. For a few mad years fortunes were washed out of the river gravel, then as the richness of the strike dimmed the more restless of the whole turbulent lot kicked their sluice boxes apart and left for more fertile fields. Pickings became slimmer and slimmer and by 1900 only a few of the former thousands were left. Grass grew in the streets of Fort Sumpter and the town was in dan-

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mous aggregate she handles. Working day and night, except for necessary stops for oiling, repairs, etc., "The Big One" in February of this year piled up tailings amounting to 279,000 cubic yards. This is a pile the size of the new Postoffice building with a couple of sub-stations thrown on for topping. Working on very favorable gravel deposits one man could, by long hours and hard work, shovel five yards into his sluice box in a day, and in the late '60s, when there was still plenty of gold left in the streams, he could wash out about half an ounce, bringing him around \$8. To handle as much yardage in a month as "The Big One" roots out, 70,000 men would be working their heads off, but since pricer pickings are not what they used to be, the 70,000 would do well if they made WPA wages. If they had to go down to bedrock at 15 feet where this gravel eater has her manganese nose most of the time they wouldn't make enough to buy their boots and shovels. Seventy years ago labor in the camps cost \$5 a day, so that placer operators who hired their labor paid about \$1 a yard for shoveling gravel. Last year "The Big One" piled up nearly three and a half million yards of gravel and the cost was a trifle less than a nickel a yard.

Gold began accumulating in Sumpter valley about the time the great saurians were disappearing

ing, releasing some of their gold to be carried away by the rushing mountain streams, forming placer deposits and rich pockets of free gold. The discovery of these deposits marks the beginning of Eastern Oregon mining history.

Billy Griffin had arrived in California too late to benefit by the gold discoveries in that state and hearing of a strike in Southern Oregon in 1852 hurried up there. Finding the field already overcrowded, Griffin after a time headed off north and east, going nowhere in particular. He drifted across the Blue mountains and the fall of 1861 found him crossing a little stream a few miles south of what is now Baker. The place having a likely look and prospectors being what they are, Billy stopped to wash a little gravel and almost fell into the creek in his amazement, for here was real pay dirt at last.

### Town of Auburn Became Headquarters

News of the find spread like fire in the pines and in a short time a horde of gold-hungry adventurers had their tents pitched on every stream. The town of Auburn, now long extinct and almost forgotten, became headquarters for the mining fraternity and from this base the ravenous throng spread in all directions. In 1862 rich placers were discovered on upper Powder river and the town of Fort Sumpter was

ger of becoming another spectre on the road to fortune.

Placer mining was definitely in a decline. There was still gold in the gravel beds but to recover it great quantities of material had to be handled, making hand shoveling too slow and costly. Water was scarce, too, so that hydraulicking was no longer practical. Gold seekers turned to the deep mines and Sumpter, as it was now called, enjoyed a fitful revival of prosperity when a smelter was erected there in 1904. Financial troubles closed it in 1908 and the district slumped again.

Yet interest in placer mining had not died in spite of the difficulties confronting it. Knowing that only the cream of the gold deposits had been taken off by the wasteful methods used during the delirious days of the big rush, a group of enterprising placer owners began, in 1905, experiments with a land dredge for digging and screening the gravel. In between frequent breakdowns this crude affair recovered enough gold to encourage its owners to go further with its development. A pond was built to store water for the washing operations and then came the idea of putting the machinery on a hull and floating her on the pond. And so, without fanfare and christened only by a resounding splash of dirty ditch water was launched the first ship of the mountain navy.

The success of this novel departure encouraged other placer operators and more dredges were built. They came in time to be known by the appropriate, though inelegant, name of "doodle-bug" because they left a trail of conical mounds behind them. In 1912 the first "Big One" was built by the Powder River Dredging company. This was the first continuous bucket dredge in Oregon and it operated very successfully until 1924 when falling gold prices caused her to be beached.

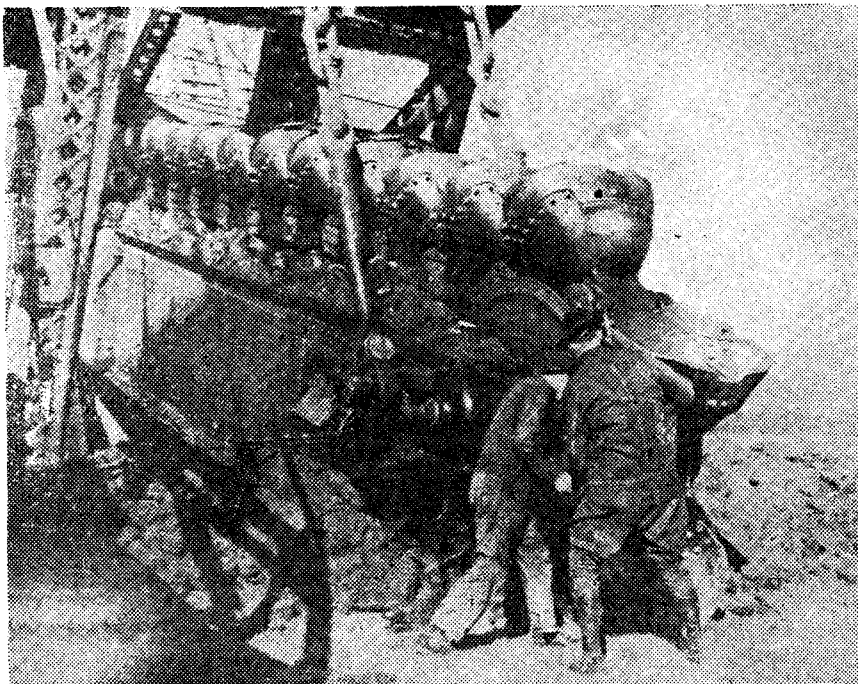
When the New Deal was bitten by the "gold bug" and started to hoard gold it appeared that digging gold might again become a profitable enterprise. Upper Powder river was all a-bustle as construction was rushed on a bigger and better "Big One." This ship, finished in 1935, has a hull length of 120 feet, a beam of 54 and a draft of 7 feet. From the tip of her steel bucket ladder to the sternmost roller on her stacker she is 350 feet; a regular dreadnought of the hills. With straight-sided hull and surmounted by a severe, box-

carried him, to every gold the two Amer for getting o and prepared says Oscar C tion is to pa and to do tha for any emer resistance of wear and tear ery is tremen of wornout. Breakdowns as possible. shows signs placed with with a mini well stocked of the comp enough parts li: waiting t ing: thus prep happens e the buckets o to keep red

### Dredge Then Build

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'Greasing' the 'big one's' shiny nose.

# Gold Sumpter



'Picking 'em up and laying 'em down'—figuratively speaking, day and night; night and day, huge dredges in Oregon's Sumpter Valley area are mauling over colossal chunks of native earth and are recovering, in minute particles, enough gold to make it pay.

shaped deck house, she is no clipper ship, but she does the work she was intended to do and does it thoroughly and consistently.

In charge of operations for the Sumpter Valley Gold Dredging company, owners of this dredge, is Oscar E. Coombs. Oscar Coombs, who began rocking a sluice box shortly after his mother stopped rocking his cradle and whose itching feet carried him, in his younger days,

are liberally sprinkled. Quicksilver has a remarkable affinity for gold and reaches out with greedy fingers to clutch and hold any particles of the precious metal which come in contact with it, soaking it up like a sponge soaks up water. This process of gold recovery is called the amalgam or amalgamation process because the quicksilver and

quite a different thing. It becomes plastic like putty and finally quite hard. The problem now is to disengage the firm grip which the silver has on the gold so that the gold may be entombed in Kentucky and the silver may go back to work on the dredge.

This is done by means of a quicksilver still. Quicksilver becomes a gas or vapor when heated to 680 degrees and so the amalgam is heated to this temperature. The

to every gold field of importance in the two Americas, has two formulas for getting out the gold. "Yardage and preparedness are the secrets," says Oscar Coombs. "If this operation is to pay we must dig gravel and to do that we must be prepared for any emergency." In spite of the resistance of modern alloy steels the wear and tear on dredging machinery is tremendous and replacements of worn-out parts are frequent. Breakdowns are anticipated as much as possible. As soon as any part shows signs of undue wear it is replaced with a new or repaired part with a minimum of delay. In the well stocked shops and storeroom of the company at Sumpter nearly enough parts to build another dredge lie waiting the call to service. Being thus prepared for trouble before it happens enables Coombs to keep the buckets climbing the ladder and to keep red ink off the ledgers.

### Dredge Tears Down Then Builds Up

As the dripping buckets top the ladder they dump their load into a hopper where streams of water keep the mass from clogging the outlet. From this hopper the muddy gravel passes into a long revolving screen where further streams of water effectively separate the mud and sand from the coarser gravel. The gravel emerges from the screen onto a wide rubber conveyor belt which carries it up an incline and dumps it off the end of the stacker. Thus the dredge bites off the bank on one end of her watery prison and builds it up an equal amount on the opposite end.

The material which passes through the screen, now a thin soup and called "the fines" drops onto inclined tables which are a series of parallel sluices on either side of the screen and running athwartship for a few feet, then turning aft and discharging overboard at the stern. The bottoms of these sluice boxes are laid with Hungarian riffles; bars of flat iron about one quarter inch thick and one and one quarter inches wide. These riffles are set squarely across the bottom of the tables but are inclined slightly, forming a series of little terraces. No one seems to know just what Hungary has to do with this method of gold recovery but the riffles are a very necessary part of the apparatus for they serve as a barrier to hold the quicksilver with which the tables

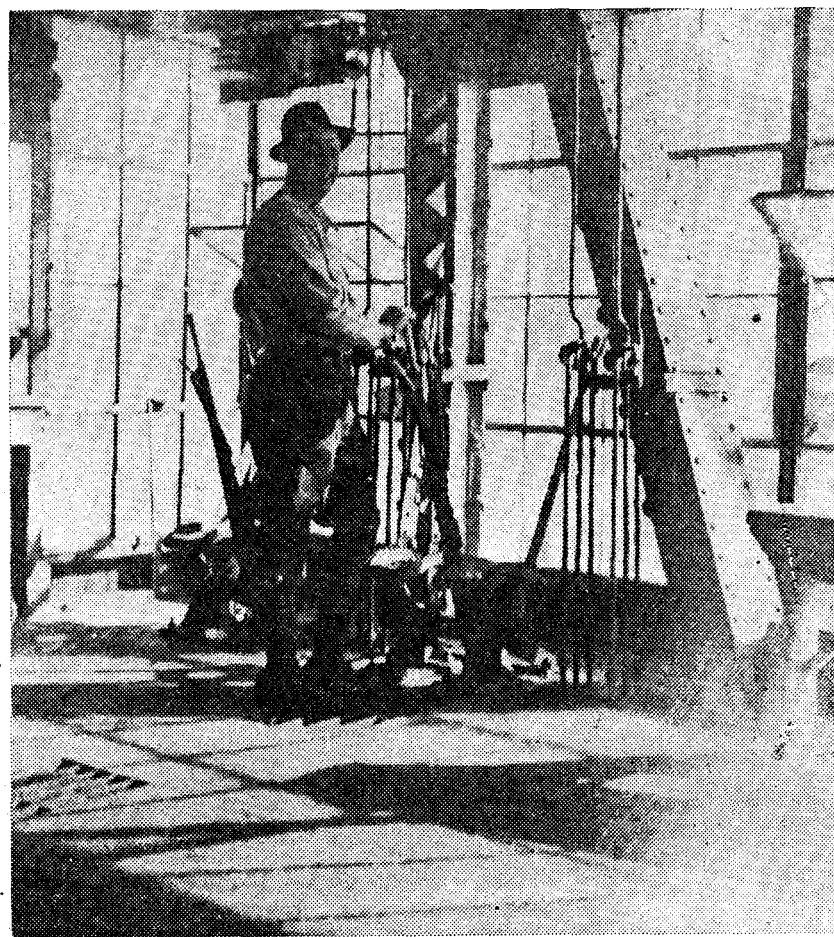
gold unite to form an amalgam or union of the two elements.

Up to the limit of its capacity not a particle of gold will get by the "silver," as the mining people call this slippery stuff, but after it reaches the saturation point gold will pass by and be lost. To prevent this the tables are sprinkled with new silver every day or oftener if working in rich ground. "Silvering up" is accomplished by filling a quart bottle with the silver and with the forefinger held loosely over the opening, shaking it around over the riffles much as one might roughly sprinkle clothes before ironing.

Clean-up day comes every two weeks on "The Big One." Then the riffles are taken up and the gold laden quicksilver is carefully cleaned off the tables. Quicksilver in the liquid state with which we are most familiar is one of the most elusive substances on earth. Try to put your finger on it and it rolls away from you; squeeze it and it isn't there. When impregnated with its elemental soul mate, however, it is

vaporized silver is carried off through a pipe to a water-cooled worm where it cools and becomes liquid again, leaving the gold still in the furnace. After all the quicksilver has been distilled off the gold is placed in a crucible and heated to above 1915 degrees, melting point of pure gold. Any slag or other impurities are skimmed off the top and the molten gold is poured into a mold where, when cooled it becomes a gold brick, shaped something like a small loaf of bread and valued somewhere between \$10,000 and \$20,000 depending on the size.

The old ways of mining are gone. The dragline and the bucket dredge have replaced the shovel and the rocker; a mechanic has supplanted the care-free adventurer. Billy Griffin and his cohorts of the bold 60s have passed this way and are no more. In Sumpter valley "The Big One" noisily bolts her gravel, while in the hills the shades of all those departed thousands pause beside their ghostly placers to listen uneasily to the sound of her torment, night-borne up the valley.



Dredge Master Gardiner at the controls of 'The Big One.'

## SCHEDULE OF ANNUAL LICENSE FEES

This report may be executed by any of the officers of the corporation, and must be filed with the corporation department during the month of June, and on or before July 1 of each year. The law provides a penalty of \$100 for delinquency.

If incomplete or irregular, it cannot be accepted, and will be returned for correction.

Annual license fee, in proportion to amount of authorized capital stock, as follows:

Where total authorized capital stock is not in excess of \$5000 .....	\$ 10.00
Where total authorized capital stock shall exceed \$ 5,000 and shall not exceed \$ 10,000 .....	15.00
Where total authorized capital stock shall exceed \$ 10,000 and shall not exceed \$ 25,000 .....	20.00
Where total authorized capital stock shall exceed \$ 25,000 and shall not exceed \$ 50,000 .....	30.00
Where total authorized capital stock shall exceed \$ 50,000 and shall not exceed \$ 100,000 .....	50.00
Where total authorized capital stock shall exceed \$ 100,000 and shall not exceed \$ 250,000 .....	70.00
Where total authorized capital stock shall exceed \$ 250,000 and shall not exceed \$ 500,000 .....	100.00
Where total authorized capital stock shall exceed \$ 500,000 and shall not exceed \$1,000,000 .....	125.00
Where total authorized capital stock shall exceed \$1,000,000 and shall not exceed \$2,000,000 .....	175.00
Where total authorized capital stock shall exceed \$2,000,000 .....	200.00

Annual license fees payable in advance to the corporation commissioner on or before the fifteenth day of August, 1937.

NOTE—Where the corporation has stock of no par value, for the purpose of computing the annual license fee, each share of stock having no par value shall be considered as having a par value of \$10. (Sec. 25-228, Oregon Code 1930, as amended.)

File No. 37518

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# ANNUAL REPORT

TO THE  
CORPORATION DEPARTMENT

OF THE  
STATE OF OREGON

FOR THE  
Year Ending June 30, 1937

OF

A corporation organized and existing under and pursuant to  
the laws of the State of Oregon



The Sumpter Valley Gold Dredging Company is reported to have expended \$162,470 during 1937, of which \$4,170 went for state and Baker County taxes. The company maintains a steady production of 7,000 yards of gravel daily and employs from 20 to 30 men. Work was started in April of 1935 and it is estimated that the company has about 10 years of work before the gravel supply is exhausted. The same interests are now engaged in testing placer ground near Jacksonville, Oregon, with the possibility of installing a dredge in that region. W. H. Cullers, Public Service Building, Portland, is president and O. E. Coombs, Box 110, Sumpter, is general manager.

15-38

SUMPTER VALLEY DREDGING CO.

4/35

SUMPTER VALLEY Dredging Company has floated the hull of its 1200-ton dredge below Sumpter, Oregon, which will have a capacity of 7000 cubic yards of gravel per 24 hours. Carl Anderson is in charge and will operate the boat when it is completed. It will have a bucket line of 73 close-connected buckets, operated by electric power from the Eastern Oregon Light & Power Company. Mrs. W. H. Cutlers of Portland, wife of the company's president, christened the boat the "Sumpter Valley No. 1" at a well attended ceremony in April.

6/38

## MINING ASTIR IN SUMPTER AREA

A small dragline dredge will soon be in operation on the Tommie Mark place just below Herschel. The operators, an Idaho concern, are assembling it here to stir in the mining industry. The Harrison has sold his ranch to the Sumpter Valley Dredge company, which has operated here for several years. A

California company is prospecting and drilling several places in the valley. A dragline dredge has been in operation for six weeks above Sumpter.

## Dredge and Drag Line Operations Cause of Activity

Sumpter Valley is becoming the scene of great activity in placer mining. The Sumpter Valley Dredging company boat working night and day is the largest operation.

Little, Harris and Wolfinger operating a dragline dredge on the Northey ranch between McEwen and Sumpter, has worked steadily during the winter running day and night. The washing plant was housed in a shed and a heating plant installed which made it possible to operate in sub-zero weather.

Now comes the R. K. Nutting company dragline dredge that is nearing completion at Sumpter and which will be operating in a few days.

The Consuela dredging company which last year installed a large electric dragline dredge on Cracker creek above Sumpter was closed at the start of winter, but it is to be put in operation at once, according to word received in Baker.

It is reported that ground on McCulley's fork near Sumpter is to be tested with the purpose of installing a dredge operation on that stream.

Add to these mining operations the work at Bourne and the building of a mill at the Argonaut mine along with other quartz operations in that locality and the outlook for an active mining season in the Sumpter district is bright.

## Large and Small Operators in Field

### Low Cost Dredging Promotes Activity

Activity along the placer mining front has never been greater than this season over the fields of this county. So say engineers from California, Montana and locally who have tested, leased and otherwise crossed and re-crossed some of the most likely acreages this spring.

The basis reason is, of course, the proven presence of gold over large enough areas to warrant power mining. But the contributing cause for the renewal of interest is the improvement in the equipment that makes operations more efficient.

Recovery from ground adjacent to good water has been generally more complete and was worked very early with hydraulic giants, by hand methods in richer deposits and by old-time power or dredge equipment.

Rye Valley placers produced over a million dollars when washed by early-day hydraulics. At one time Eldorado placers supported 100 miners working with hand methods. Sumpter valley in more recent years yielded in excess of \$3,000,000 to the former dredging company. Burnt river supported operations. Not to mention famous old Auburn, Stice's gulch, Salmon creek, Elk creek, Deer and Cracker creeks, the Granite and Greenhorn country, Connor creek, Snake river, Virtue flat, the Panhandle, Maiden and Shanghai gulch.

### Big Dredge Washing

Now after 76 years of mining, we're really getting into the swing of it. Practically every district regardless of past production is now supporting mining operations of some sort. In many cases they are larger than heretofore seen in the particular locality.

For example, the Sumpter Valley Dredging company with its quarter of a million dollar boat is setting up digging recors with its nine-pot dredge, running in the neighborhood of 800 cubic yards per day since 1935 when it was launched on Powder river several miles below the town of Sumpter. The boat is the largest in the United States outside of California. With a good deal of work ahead of it the boat is adding many hundred thousand dollars to the annual gold production of the district and contributes about \$165,000 annually to the payrolls and purchases. Twenty-three men are employed. The operation has prospects of continuing for about 10 years.

### Doodle Bugs Active

The Consuelo Oregon Mines company has a "Doodle Bug" dredge operating above Sumpter. Norman Parker has a similar out-

fit operating only five miles out of Baker on Elk creek with over a dozen men employed and two shovels furnishing the pay dirt.

Harry F. England of California, originator of the new land dredge idea has one operating near Hershel in the Lower Sumpter valley. All of these began digging during the present spring and will add materially to the 1938 gold output of Baker county, the state's major producer of yellow metal.

The secret of the Doodle Bug, which is merely a washing plant of reasonable mobility fed by land-moving draglines, in their low original cost as compared with a floating dredge of continuous bucket line design. They work small areas not heretofore feasible and at a cost said to go as low as nine cents a yard under favorable conditions. Oregon dredges during 1937 had an average operating cost of 11.6 cents and shovel operations of the past have cost 22 cents per yard.

### Other Ground Taken

Porter Brothers have been testing ground at Granite the past two years and recently established an office in Baker. Other ground of the Granite section is under option.

Charles H. Timms has extensive ground said to test favorably at Whitney and is said to be considering a dredge there for this fall. Leon Saboe of California this week put in a drilling crew of six miles of ground below Timms and A. D. Penrod also has Whitney ground tested. Saboe left this week to represent Farris-Marchbank in Montana.

Washing for gold on Pine Creek on Burnt river was also continued this spring.



# SUMPTER VALLEY DREDGE PAYS OUT \$56,100 IN WAGES

## 23 Employed; \$30,- 000 in Electric En- ergy Consumed

The magnitude of the operation of the Sumpter Valley Dredging company is always amazing to the residents of Baker county and tourists viewing the operations of the dredge, which is located near Sumpter.

A huge boat is visible to the eye and this boat with its bucket line reaches out, taking bites of nine cubic yards of gravel from the bank in front of the boat. This gravel is passed through a sluicing system and the gold is extracted from it. It is always a marvel that man can be so proficient in securing the precious metal from where it was deposited centuries before.

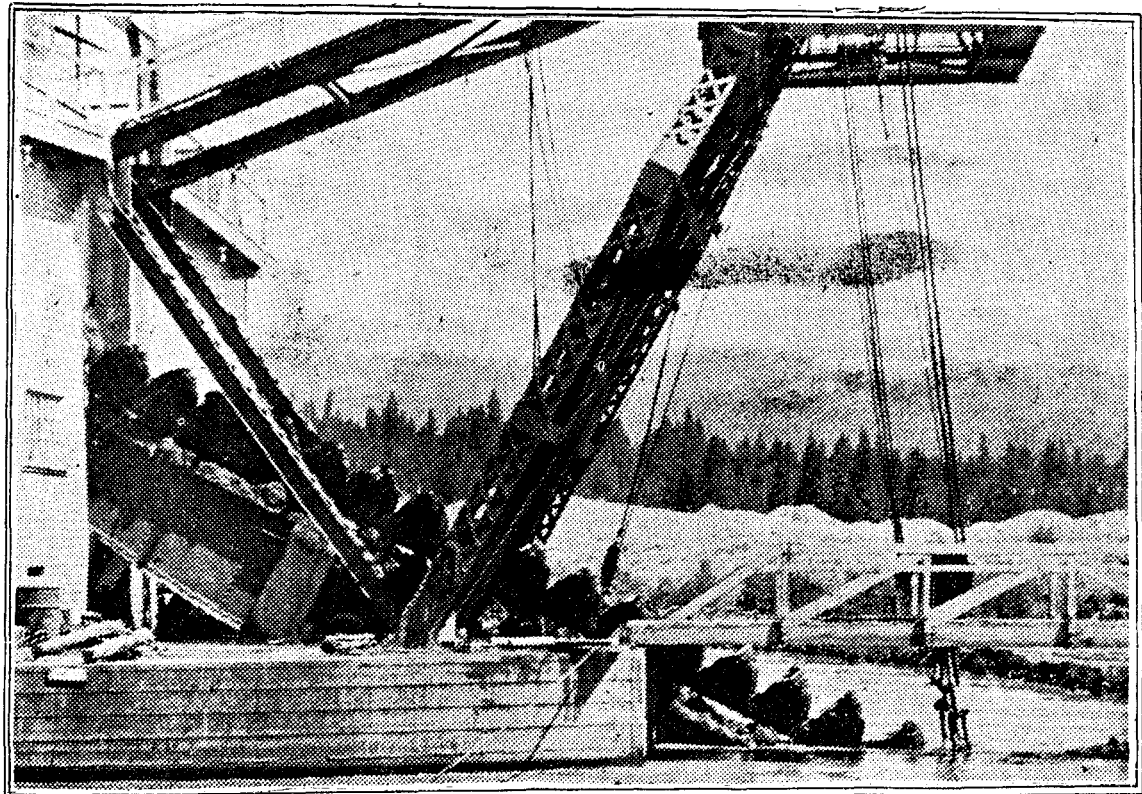
The cost of such a huge mining operation and its possible value to the county and state is always thought of when one looks over the venture.

W. H. Cullers, president of the company, was recently approached on the subject of costs and values and briefly expounded on the matter. He stated that during 1937, 23 men were employed on an average, who received a total of \$56,100 in wages. The electric energy consumed for the year, Mr. Cullers said, amounted to more than \$30,000.

"Machinery working to capacity on heavy duty, such as is necessary in digging into the banks of packed gravel, encounters heavy wear and needs much replacement," Mr. Cullers stated. "and when the amount of material that was put through the company's machine shops during the year was totaled it was found to total \$44,000 with additional supplies amounting to \$17,700.

"The tax collector came in for his share in Baker county and the state received \$4720, while an additional \$10,000 was expended in miscellaneous expenses, such as insurance, traveling and administration."

## DREDGE IN OPERATION AT SUMPTER



SUMPTER VALLEY DREDGE

The Sumpter Valley Dredging company is conducting one of the large mining operations in Baker county. The payroll of the organization and expenditures for materials and taxes are a decided benefit to the population of the county.

The gold digger is said to be the largest in the United States outside of California and there appears to be about 10 years of work left before the possibilities of the gravel deposits of the Powder river through Sumpter valley is fully exhausted. In January two and a half years of continuous operation, was completed.

The operation of the boat was begun in 1935. The water capacity was given at 7000 cubic yards per day, but during the years the boat has been working it is believed by many dredge men that the amount of gravel washed has far exceeded that figure. Many digging records have been established for a nine-foot boat.

The company is an Oregon owned and controlled corporation and the

expenditures of operation are practically all distributed within the state, with by far the greatest part in Baker county.

## Sumpter Dredge Finds Jigs Save Fine Gold

The Sumpter Valley Dredging company last fall installed a couple of "jigs" in a test to determine the advisability of using the new equipment in saving gold on the boat. The tests were found successful from the first and continued work with the two installed first so satisfactory that it is reported others have been ordered and will be installed on the boat when they arrive.

The "jigs" are manufactured in Denver and are being used on many gold dredges operating in California and other states. The machines are a modern adaptation of the principal of "jigs" used many years ago in saving lead concentrates in the lead mines. They are said to have much success in catching much of the fine gold that has often been lost in gold dredging in the past.

**Gold Brick Worth  
\$20,000 Shipped  
By Sumpter Firm**

Not as large as a loaf of bread but worth 200,000 times as much, was the gold brick that was brought down from Sumpter yesterday from the property of the Sumpter Gold Dredging company, said several Baker men who were reported to have seen the \$20,000 article yesterday in the Hotel Baker.

The brick was swiftly brought to Baker, so "Dame Rumor" has it, yesterday afternoon by an armed guard, preparatory to shipping it out to one of the United States mints. The loss of the brick would not mean much to the company as it has been registered with the United States mint and then insured, but ironically enough it would be of little value to anyone else as there would be no market for the raw gold, besides the gold could be very easily traced and capture of a thief would be inevitable.

Very few people have seen such a bulky chunk of this precious metal, but those who do see one like it cannot help but be impressed with the value of the article. Such an occurrence seems to bear out the old saying of "Thar's gold in them thar hills."

*Baker Investment Bank 10/1/38*

**\$20,000 Gold Brick  
in Baker Wednesday**

Ever see a chunk of gold worth \$20,000? This was the treat a number of Baker residents had Wednesday afternoon. The gold was in the form of a brick brought to Baker from the Sumpter Valley Dredging company's boat in Sumpter Valley. It represented the cleanup just completed from a short run of the boat.

Gold bricks from the dredge are not uncommon in Baker, as they are brought here for shipping to Uncle Sam's mint every week or two. One of this size, however, is a bit unusual, as it probably represents the largest cleanup made by the company in the years it has been operating in the Sumpter Valley.

Anyway the sight of a \$20,000 gold brick is a sight to be remembered.

*Eastern Oregonian Baker  
1-28-38*

Sumpter Valley Gold Dredging Company  
Mining Jour. (Phoenix) v. 21, # 9, p. 49, Sept. 30, 1937.

"The Sumpter Valley Gold Dredging Co. is reported to be carrying on experiments with a specially designed jig for saving fine gold that passes over the sluices and is not reached or caught by the amalgam in the sluice boxes. The method has been successful in other operations and if it proves suitable to the Sumpter Valley gravel a sufficient number will be installed to treat present production. W. H. Oullers of Portland, Oreg., is president and C. E. Combs, Box 110, Sumpter, is general superintendent."

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The Sumpter Valley Gold Dredging Company is reported to have expended \$162,470 during 1937, of which \$4,170 went for state and Baker County taxes. The company maintains a steady production of 7,000 yards of gravel daily and employs from 20 to 30 men. Work was started in April of 1935 and it is estimated that the company has about 10 years of work before the gravel supply is exhausted. The same interests are now engaged in testing placer ground near Jacksonville, Oregon, with the possibility of installing a dredge in that region. W. H. Cullers, Public Service Building, Portland, is president and O. E. Coombs, Box 110, Sumpter, is general manager.

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## DREDGING FOR GOLD COSTS A LOT OF MONEY

Operation of Boat in Sumpter Valley Cost Over \$160,000 in 1937

\$56,000 WENT FOR PAY ROLL OF CREW

Sumpter Valley Dredging Company Operating For Two and Half Years Has 10 Years' Run Ahead.

The expenditures of the Sumpter Valley Dredging company totaled \$162,470 during its operations in the year 1937, according to a statement issued this week by W. H. Cullers, president of the company.

Discussing the expenditure, Mr. Cullers stated the company employed an average of 23 men during the year and paid to them in wages a total of \$56,100.00. In order to keep the machinery running 24 hours per day, the electric energy consumed cost the tidy sum of \$30,400.00. New material and equipment that passed through the machine shops in keeping up replacement of wearing parts, \$44,000.00 was spent on this general item, with additional supplies purchased amounting to \$17,700.00.

The tax collector came in for his share and Baker county and the state received \$4,170.00 from the dredge company, and the additional sum of \$10,000.00 was expended in the miscellaneous items such as insurance, traveling and administration.

The figures give the answer to the question many times asked by people who have occasion to pass through Sumpter valley and see the huge plant in operation. They often ask what is the cost of the operation and what becomes of the money spent by the company?

The answer is that it is an Oregon corporation, and the stockholders are residents of the state. Practically all the money spent in the operation goes into the trade channels of the state, and by far the greater portion is spent in Baker county.

The company's dredge, on upper Powder river, in Sumpter Valley, is rated as the largest gold-digging boat in the United States outside of California. It has been operating for two and a half years and is estimated to have 10 years work ahead of it before exhausting the gravel deposits of that locality.

At the launching given by the company, April 16, 1935, the rated capacity was given at 7000 cubic yards per day, but during the years the boat has been working it is believed by many dredge men that the amount of gravel washed has far exceeded that figure. In fact many digging records have been established for a nine-foot dredge.

The principals of the company are now engaged in testing placer ground near Jacksonville, Oregon, with the possibility of building another dredge in that locality.

There are now in operation in Oregon five gold dredges, including the Sumpter boat, three in Grant county and the Rogue river Gold Dredging company in southern Oregon.

## DREDGING FIRM TO PUT IN PUMP

### Requirements of Sanitary Law Will Be Met

In order to anticipate any requirements of the new sanitary commission recently appointed by former Governor Charles Martin, the Sumpter Valley Dredging company, now operating near Sumpter, will install immediately after spring freshets \$10,000 worth of new equipment, the results of which will comply with the new anti-pollution law passed by the voters in November.

This equipment will consist of a modern, 10-inch sand pump driven by a 150 horsepower motor and 3500 feet of eight-inch, electrically-welded steel pipe, which will take the water from the digging pond and place it half a mile back in the tails, where a filtering process will be carried out before the water is discharged into Powder river.

While many of the placer miners in the state have thought the new law will work hardships upon them, the dredging company officials said they intend to do everything possible to meet the requirements.

The dredge operated by the company is the largest in the United States with the exception of some in California. From eight to 10 years of work is ahead before the gravel beds are exhausted, it is said.

## Non-Suit Motion Denied; Dredge Co. Begins Defense

### Lloyd Witnesses Claim Lands, Ditches Damaged by Silt

Twenty witnesses had testified for the plaintiff, R. C. Lloyd, when he rested his case before a circuit court jury here Tuesday after the first week of the trial in which he seeks \$30,000 damages against the Sumpter Valley Dredging company for alleged damages to farm land near Baker and to irrigation canals and reservoir as the result of mining silt in Powder river.

The trial was punctuated by a half-day argument on a motion by defendant of involuntary nonsuit Tuesday. The motion was refused by Judge C. H. McColloch and the defendant began to draw his case and examine witnesses starting yesterday morning. It is expected the trial will be concluded this week.

The defendant in supporting his motion argued there was no evidence submitted by plaintiff as to actual capacity of either the reservoir or the ditch, that there was no evidence to support his contention of a depreciated value of ranch from the purchase value placed by witness E. C. Lloyd at \$80,000, and that the party of the plaintiff was a partnership and not the person of R. C. Lloyd, a legal question.

Defendant argued that the evidence left to "conjecture" the matter of which placer operations were responsible for the stream silt and the proportion each was responsible "would have to be determined by conjecture."

Attorney George Cochrane for the plaintiff argued as to his contention his evidence offered the jury sufficient grounds for a decision as to whether the defendant caused all the damage, and if not all as to what proportion of the damage.

Plaintiff's witnesses included E. C. Lloyd, Clyde Ward, Amos Gard, Lee Stewart, Milton Moore, Leo Schiller, J. E. Powell, Lewis Osborn, C. H. Perkins, Richard Stomkman, D. L. Hughes, Albert Sipp, Arthur Powell, Dave Worsham, Jesse Brown, Joe P. McEnroe, C. T. Godwin, Cecil Sturgill, E. B. Moeller and A. M. Thomas, foreman of the Lloyd property, the former Guthrie farm east of Baker in Sunnyslope district.

The farmers testified as to the effect of the Powder river silt on irrigation, sub irrigation and crops and in ditches. Moeller testified as to his estimate of the damage to ditch and reservoir. Brown, a grange member, testified a farmers' committee had contacted the dredging company at one time on the matter of Powder river mining silt.

The case took a technical turn with the appearance on the stand of Richard Stockman, engineer, who produced a record of his analysis of the stream water in 1938 and again in 1939 both above all the dredges, between the various dredges, above the Sumpter Valley dredge, below it and at the mouth of the irrigation canal several miles below.

The defense opened with the testimony of Leo Boyce, high school student who with others used to skate on the Lloyd reservoir (Smith's lake). Cordon Ragsdale testified he formerly farmed 80 acres of the ranch and minimized the silt problem and attributed low yields to land and seasons.

Technical testimony was resumed by the key witness to the defense, Engineer Anderson, who was here when the dredge was built and who returned to advise the counsel for the defendant in the present case.

Samples of silt cake, wrapped in cellophane, were profuse. Anderson introduced pictures of the canal, said it was in a "deplorable" condition and went into the nature, origin and deposit of silt yesterday and this morning.

## LLOYD DAMAGE SUIT IN COURT IS ATTRACTION

R. C. Lloyd Is Plaintiff  
in Action to Recover  
\$30,000

DREDGING COMPANY  
MADE DEFENDANT

Damage Alleged as Result  
of Silt from Mining Op-  
eration Settling on Plain-  
tiff's Lands.

More than usual interest is being shown in the case of R. C. Lloyd versus the Sumpter Valley Dredging company in the circuit court before Judge C. H. McCulloch the past 10 days.

Lloyd is suing the dredging company for \$30,000 alleged to have been caused by debris and silt in Powder river from the mining operation of the company in Sumpter valley. The plaintiff has a water right from Powder river which takes water from the stream below the dredge, and alleges the damage was caused by the silt carried by the water settling on the land.

The farm which is alleged to have been damaged by the muddy water, is known as the Bal-four-Guthrie farm in the Sunny-slope district north and east of Baker.

Attorneys for the plaintiff are Cochrane and Eberhard of La Grande, and for the dredging company, Hallock, Donald and Banta.

The case was opened Tuesday before Thanksgiving. The first two days were devoted to selection of the jury and taking the jury to view the lands and ditches which are alleged to have been damaged by the muddied waters of Powder river.

On Tuesday of this week the plaintiff rested its case, having completed introducing its testimony.

Wednesday morning the defense called witnesses and it will probably take up the rest of the week presenting its side of the case.

## FARMER DENIES DAMAGE TO LAND

L. R. Harris Testi-  
fies for Sumpter  
Dredging Co.

L. R. Harris, dredging operator and farmer in the Sumpter valley, testified this afternoon for the Sumpter Valley Dredging company, which is being sued in circuit court by R. C. Lloyd of Walla Walla for \$30,000 damages alleged caused his lands by dredging operations of the company.

Mr. Harris testified that he had no trouble irrigating his land with water from Powder river, in which there is silt. He further stated that he also had no trouble sub-irrigating his land and deemed the silt material of benefit to his farming operations.

Max Hoffman, also a dredge operator, testified during the early part of the afternoon for the defendant. Carl Anderson concluded his testimony this afternoon after being on the witness stand most of yesterday and this morning.

## No Damages Given Farm Operator From Local Dredge

**Verdict Tuesday Ends  
\$30,000 Damage Suit  
After Two-Week Trial**

The jury of nine farmers, a lumberman, a salesman and a merchant on Tuesday afternoon brought in a verdict in favor of the defendant in the case of R. C. Lloyd vs. Sumpter Valley Dredging company. Lloyd was allowed no part of the \$30,000 prayed for in his second amended complaint for alleged damage to farm land from dredging silt in Powder river.

The jury heard arguments Monday afternoon in a four-hour session, returned Tuesday morning after nearly two weeks of testimony and received instructions from Judge C. H. McColloch. They deliberated about four hours.

The trial was closed by four hours of argument Monday afternoon at which counsel for Lloyd, George Cochrane of La Grande, contended that the defendant dredging company was "compelling this farmer to pay for what should be a part of their expense" by failing to take the silt out of the water before dumping it into Powder river. Counsel Blaine Hallock for the defendant contended "this complaint is bound to come under the head of racket" and that "it is the opening wedge to more suits than you can shake a stick at."

### Purchase, Sale Talked

The argument waxed bitter when Attorney James T. Donald for the dredging company attacked the land transaction testimony by which Lloyd attempted to establish what the ranch cost him in 1937 and the selling price in 1939. The defense claimed testimony was that Lloyd paid \$21,500 and sold for \$80,000 for the approximately 5000 acres in Sunnyslope.

Lloyd contends, his counsel argued, that besides the above purchase price he paid \$60,000 by giving a Wheeler county land equity to cancel an option on the local land, a total, he claims, of \$80,000. In selling the ranch, Lloyd argued, he threw in the Borton ranch and much personal property in the deal, all included in the \$80,000, showing, it was contended, that the ranch itself had depreciated by the silt in the canal, reservoir and on the land. Defense challenge the validity of the "option" in figuring the cost.

Donald opened up his argument with the challenge that E. C. Lloyd "made \$40,000 on the deal and now asks for \$30,000 more." He attacked Lloyd on his admission he was a real estate man and asked the jury "has he been farming the farm or farming the farmers?" The defense attacked the failure of plaintiff R. C. Lloyd of Walla Walla (son of E. C. Lloyd) to appear or to sign the complaint except through his attorney, Cochrane. The defense countered with the claim that no dredging company official appeared on the defense.

### Plaintiff's Case

Cochrane summarized testimony by claiming that "the figures show there was a consistent dumping of silt and slime and tailing from that dredge and that it carried down the stream, into the ditches and onto the land."

Testimony of Richard Stockman, engineer, was pointed to as showing the "water was clear above the dredge and muddy below." Figures quoted from Stockman's tests showed that the silt amounted to from 983 pounds to 1316 pounds per million gallons of Powder river water at a point above the Hofmann doodle-bug in October and November, 1938, and November, 1939. Silt was measured at from 2082 pounds per million gallons to 5,739 pounds just above the dredge at the same dates, it was stated, in showing the doodle-bugs were "taking care of their silt. Stockman testified that below the dredge the dirt in the water weighed as high as 180,000 pounds per million gallons, this in October, 1938, when plaintiff contended the Sumpter dredge

"caused all the damage." Other figures showed 9663 pounds in November, 1938, and 10,554 in November, 1939. Considerable settling was evidenced before the water reached the head of the Sunnyslope ditch, with the plaintiff contending this deposit in the river was picked up in high water and carried into his ditch in the spring when he was filling the reservoir.

### Claims Damage Wrought

Cochrane argued that it took Lloyd three weeks to fill the reservoir but that with no silt in the ditch "it should have taken but two."

Cochrane contended Lloyd's witnesses, the farmers, corroborated Lloyd's contention that the silt does damage farm land and crops and prevents sub-irrigation practice by "sealing" the soil. Defendant counsel challenged the plaintiff's farmer-witnesses for their "unconscious motives" in testifying against the silt in Powder river from which they, too, irrigate.

In claiming damage, Lloyd contended in 1938 he got 313 tons of hay and should have gotten 400, 133 pounds of seed per acre which should have been 300; 20 bushel wheat yield which should have been 40; and in 1939 1300 bushels of wheat which should have been double that; 290 bushels of rye which should have been 1400 bushels.

### Defense Refutes Yields

Defendant contended there were "gross exaggerations" in the claims for acreage planted by Lloyd and presented Charles Brown and Cordon Ragsdale, former operators of the land, to support the defense contention that 1938 produced a "bumper" crop for that land. Plaintiff pointed to testimony of Clyde Ward to show that 1938 didn't produce the best crop on the land. Lloyd contends that the \$11,000 for crops in 1938 was a small return for the big irrigated ranch.

Cochrane reviewed the testimony that the ditch lost from 50 to 100 percent of its capacity during the 1939 season by the silt and quoted Stockman as saying the flume—the bottle-neck of the canal—would carry 1750 inches. Defense through witness Engineer Carl Anderson contended the flume would carry but 1100 inches.

Defense had introduced a government survey of the river at North Powder a number of years ago indicating that "58,500 tons of solids have passed down Powder river every year since recorded time." Cochrane used the figures to indicate that the present silt was "over and above the natural erosion" and that farmers did testify the natural erosion deposits were beneficial to land but that dredging silt was not.

Considerable testimony was taken on the subject of which mine was responsible for the silt in the river. "Who wore out the sidewalk?" Hallock asked in contending that the testimony was not sufficient to permit the jury to decide.

The defense through witness Charles Brown claimed that 1683 man-days of labor should have been expended on the canal during 1930-1937 if it had been maintained as in the old days and that Lloyd didn't keep the ditch in proper shape in 1938 and 1939. Defense contended that the cost of cleaning the ditch claimed by Lloyd was not for damage by dredging silt but for what it would have cost if the ditch had been maintained during the past nine years.

Defense contended that the reservoir had been silted only one inch from all sources and that during the past nine years had been reduced in capacity only 1.3 acre feet.

### Pleads for Industry

In closing his case Mr. Hallock pleaded with the declaration that both the farming and the mining industries are "entitled to a reasonable use of these waters." He indicated he was a member of the state sanitary commission and that the friction would have to be worked out and would be worked out under the recent anti-stream pollution bill which was passed by the voters of Oregon.

on the jury were: Wil-Hermesen, William Rolf-vester Brown, Graf. J. H. Rohner, Albert Crow, C. Craig, Orville Chand-nn Maxwell, L. A. Sieg-leonnig, Lemuel Sinelcer. ff's witnesses were: E. C. Clyde Ward, Amos Gard-wart, Milton Moore, Leo J. E. Powell, Lewis Os-c. H. Perkins, Richard n. D. L. Hughes, Albert thur Powell, Dave Wor-esse Brown, Joe P. Mc-c. T. Godwin, Cecil Stur-B. Moeller and A. M.

e witnesses were: Leo rdon Ragsdale, Carl N. i. Max Hofmann, L. R. J. E. Little, Gus Gekas, mon, F. C. Vaughan, Joe R. D. Shelly, Joe Chaves, Smith, G. G. Endicott, own, Sam Page, Marvin Oscar Page, Roy Knight. d called in twenty per-



## Sunnyslope Land Owner Sues Dredge

An action involving the Sumpter Valley Dredging company was filed in circuit court Tuesday seeking \$30,000 as alleged damages to farm land near Baker.

R. C. Lloyd of Walla Walla and Baker is the plaintiff, represented by Cochran and Eberhard of La Grande, and the land in question is an extensive holding in the Sunnyslope district lying east and northeast of Baker and in about 10 sections of three different townships.

Plaintiff contends that during 1938 and 1939, debris, slime, silt and tailings from defendant's dredge, which is about 25 miles above the land in question on Powder river, came down river, into the main ditch and reservoir of plaintiff. Damages allegedly incurred are: reducing capacity of reservoir and ditches, depositing a compact layer of silt on his land, making irrigation more difficult and expensive, rendering land less fertile, rendering the water unfit for irrigation. Plaintiff holds a right to water from Powder river.

## ASKS \$30,000 DAMAGE FROM GOLD DREDGE

### Lloyd Seeks Damage As Result of Muddy Irrigating Water

### SUMPTER VALLEY COMPANY DEFENDANT

### Complaint Filed in Circuit Court Alleging that Run-off Water From Dredge Causes Damage.

An action has been filed in the circuit court of Baker by R. C. Lloyd of Baker against the Sumpter Valley Dredging company asking \$30,000 as damages, which he alleges has been caused to his land and crops by silt, debris and tailings dumped into Powder river by the dredging operations of the company. Cochran and Eberhard of La Grande are attorneys for the plaintiff.

In his complaint, the plaintiff alleges that debris, silt and tailings put into the river by the company have reduced the capacity of his irrigation ditches, covered the land with a compact layer of soil, rendered irrigation more difficult, spoiled and diminished the crops, made the water unfit for irrigation and caused damage to his land to the extent of \$30,000.

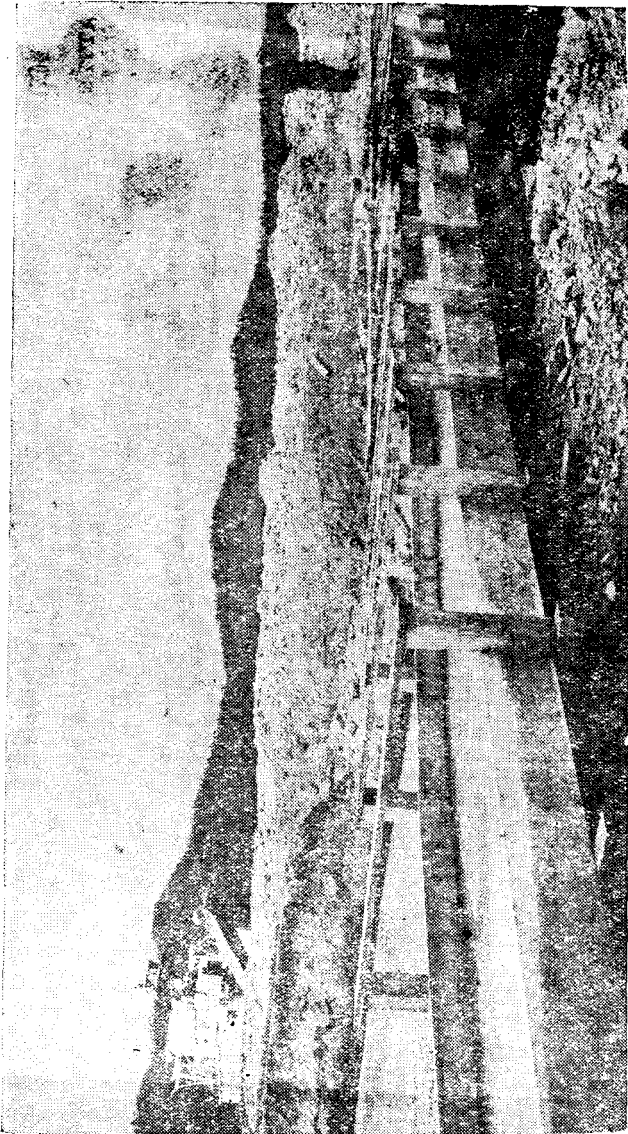
Mr. Lloyd several years ago purchased the lands and water rights known locally as the Sunnyslope project. Water to irrigate the land is taken from Powder river below the rock gorge at the lower end of Sumpter valley, and is conveyed through a ditch and flumes on the south side of the river to Smith Lake reservoir east of Baker. From there ditches carry the water to the Sunnyslope lands.

The Sumpter Valley Dredging company operates a large gold dredge in Sumpter valley. The dredge has been operating the past six years, and this is the first legal action to be brought against the company over the run-off from its operation.

Recently tests of the water used in the dredge were made. These tests are being made by the company frequently and records of the tests are kept. A recent test made by A. H. Woodwell of Sumpter, for the company, showed that the water in the river where it is taken out to flow to the dredge pond carried 820 parts of foreign matter to a million parts of water. After the water passes through the dredge it is conveyed by a flume from the dredge pond to a point on the old tailing piles left by former dredging operations from where it filters through the gravel approximately a mile. This water, the above tests showed to carry 529 parts to a million at the point where it returns to the river.

There are four other mining operations that release their tailing water into Powder river. These will watch the result of the suit against the Sumpter Valley Dredging company with interest.

DREDGING COMPANY FLUME



The flume of the Sumpter Valley Dredging company, which carries water from the dredging pond of the giant dredge to a large deposit of old tailings and gravel so that the water is purified before being turned back into Powder river, is pictured above with the dredge appearing to the left. The water returned to the river is actually purer than the water taken from the river for the washing operations.

## DREDGING WATER CLEANED BY FIRM

### Water Used in Sumpter Dredge Carried Over Rocks

Constructed recently at the operations of the Sumpter Valley Dredging company to comply with regulations of the state sanitary commission, is a flume, which carries the washing water from the dredging pond to gravel pits and old tailings and then releases it back into Powder river, purer than when it was first received.

Water is taken from above the dredge from Powder river and is used to wash the gravel in the dredge. When the water is taken from the river it shows 820 parts of material to one million and when it is released into the river again, the river water shows a decrease of material substance of 27 per cent. If the test were made of the water before it was emptied back into the river the decrease would be greater.

The overflow from the dredging pond is carried by the flume into the old tailings and gravel, where it purifies itself by running through the rocks for a distance of a mile. It is then directed back into the river.

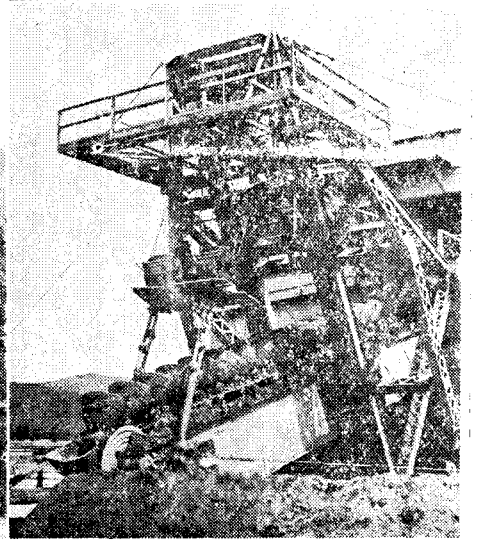
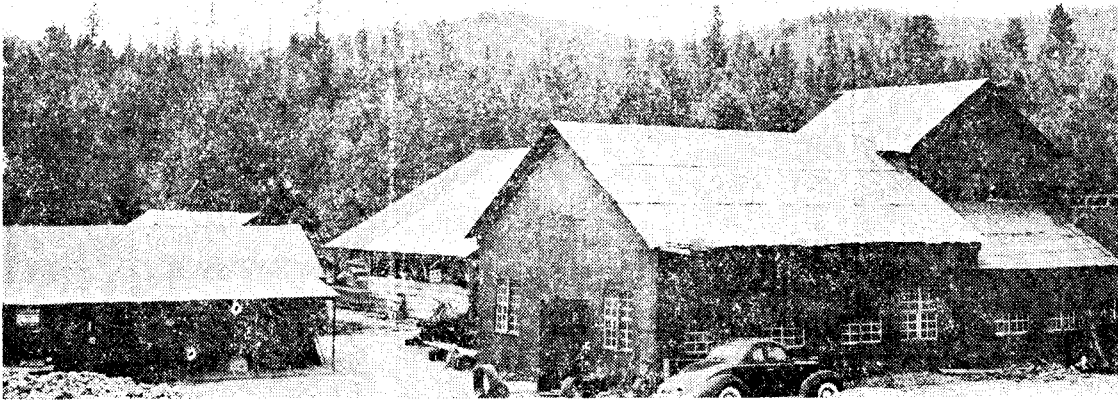
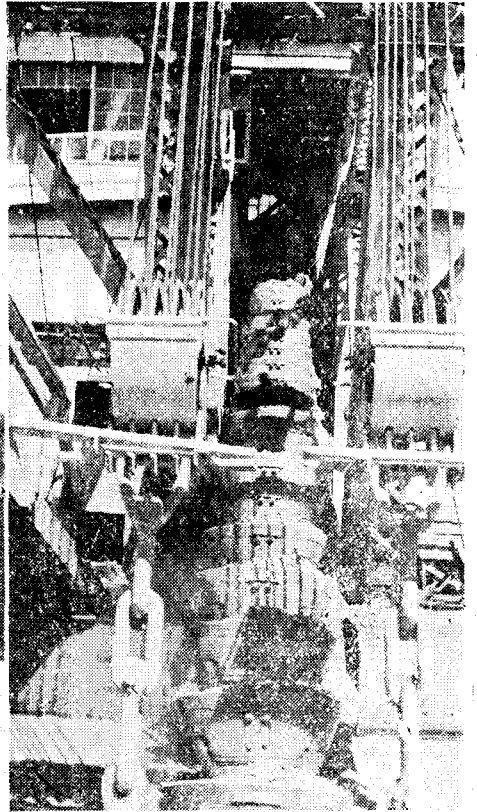
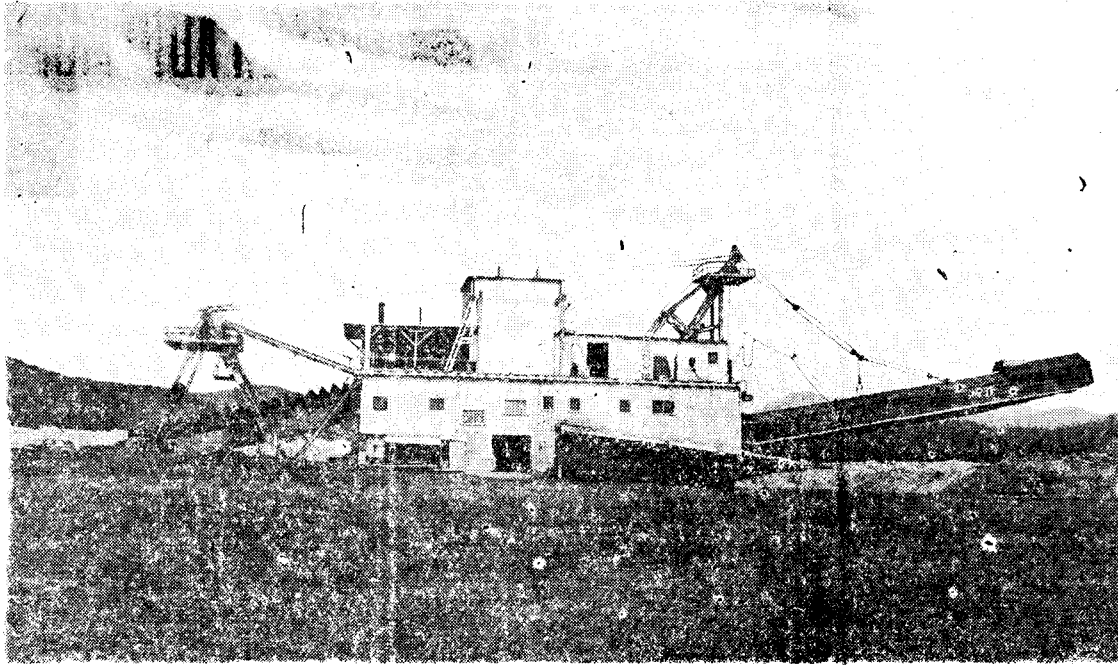
A. H. Woodwell of Sumpter, chemist and metallurgist, makes the tests for the dredging concern.

Baker Democrat Herald June 28 1939

# Sumpter Valley Firm Operates

SCENES REFLECT ACTIVITIES OF SUMPTER VALLEY DREDGING CO.

feet. With the steel superstructure



Upper picture shows the dredge in operation. Lower—Buildings which form operating headquarters and tool houses and shops. Upper right is a close-up view of the valuable buckets used in the dredging operation. Lower right gives a general view of the bucket operation.

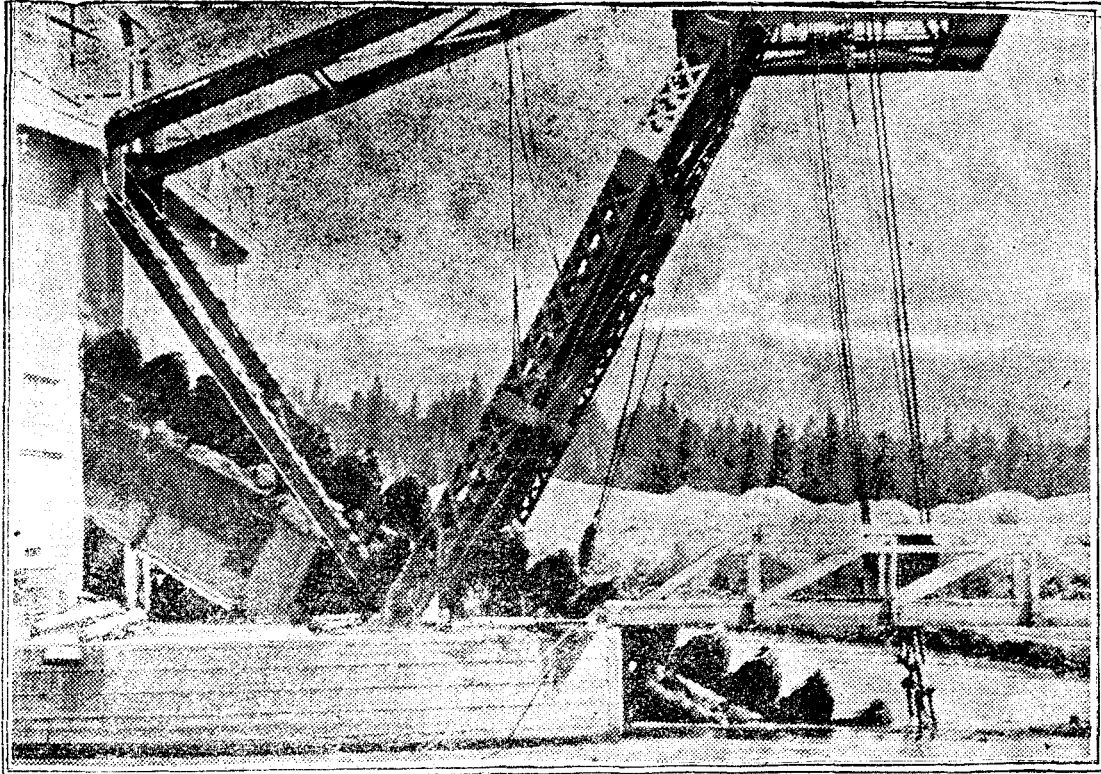
UPPER RIGHT PHOTO BY J. H. BAKER FOR THE BAKER HERALD

## *Big Dredge Will Install Filter Pond*

BAKER, Jan. 17.—(AP)—In order to anticipate any requirements of the new sanitary commission appointed by Governor Martin, the Sumpter Valley Dredging company now operating near Sumpter will install immediately after the spring freshets \$10,000 worth of new equipment. The company, largest placer operator in the state, thus hopes it will be able to comply with the new anti-pollution law passed by the voters in November.

The equipment will consist of a modern 10-inch sandpump driven by a 150 horsepower motor and 3500 feet of eight-inch electrically-welded steel pipe to carry the waters from the digging pond to a point half a mile back in the tailings, where it will be allowed to filter before it is discharged into Powder river.

## Northwest's Biggest Dredge



Sumpter Valley Dredge . . . where \$172,000 is spent each year digging out the yellow metal. Twenty-three men are employed on the huge boat. The dredge has been operating four years this month, and the company has ground enough for seven more years operation.



## Sumpter Valley Dredging Company Spent \$170,000 Last Year of Which \$60,000 Was for Labor

The Baker Mining Jubilee comes close to being a birthday celebration for the Sumpter Valley dredge. The huge boat started digging its way down the valley four years ago July 1 and today, seen four miles below Sumpter, it still justifies its claim to being the largest plant of its kind in the Northwest.

Every day, with a few exceptions, dozens of tourists and Baker county residents have gathered on the steep face bank to watch the monster claw out gravel and wash out gold. A few are lucky enough to know one of the crew and to get aboard by way of the long gangplank that is raised or lowered by a lever high in the front of the boat.

At a glance, the massive, groaning monster seems to deny and secret the human element involved in its running; and it seems as though few men are required to operate the machine. But W. H. Cullers, president of the Sumpter Valley Dredging company, points out three shifts every 24 hours are required to man the various stations on the boat and how other workmen on shore must constantly keep the machine supplied and repaired. Twenty-three men are employed the year around, he says.

### OPERATION COSTS SIZEABLE ITEM

Wages and salaries total \$4960 a month. The payroll figure has gone up during the last year, in spite of the fact that the same number of men have been employed constantly. According to Mr. Cullers, this was due in a large part to the wages and hours law. All time over 44 hours a week is paid at time and a half rate.

The total operating cost of the boat during 1938 was \$172,000. Of this figure \$37,000 was paid for electricity which powers the dredge, \$60,000 was for labor. Replacement parts for the project cost the company between \$3500 and \$4000 a month. For the first four months of 1939 the replacement expense was \$14,000, \$4500 of that figure being for April.

### COUNTY GETS 90 PERCENT OF PAY CHECK

The company operates its own truck to and from Portland, making five scheduled trips a month and hauling 20 tons of freight. Mr. Cullers gets a great deal of pleasure from saying that 90 per cent of the company's expenditures are in Baker county, and the other 10 per cent are in Oregon.

He states proudly that only Oregon capital went into the dredge investment. The investment in machinery and equipment was \$400,000. An additional \$150,

000 was paid for land, bought at a price of about \$150 per acre.

The company has holdings enough now to enable it to operate for seven more years. However, it is intended to test and buy more ground farther down the valley, which may bring the future operating period up to ten years, explains Mr. Cullers, depending of course on values found in the gravels tested.

Mr. Cullers lives in Portland, but spends at least half of his time at Baker and the dredge. Oscar Coombs is superintendent at the operation site, and Bruce Coombs is dredgemaster.

### NEW METHOD CLEARS WATER BELOW DREDGE

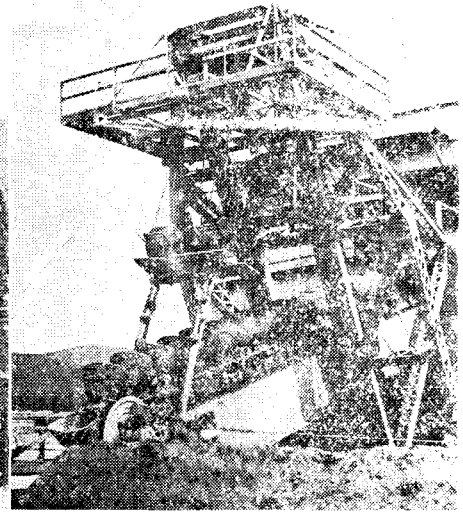
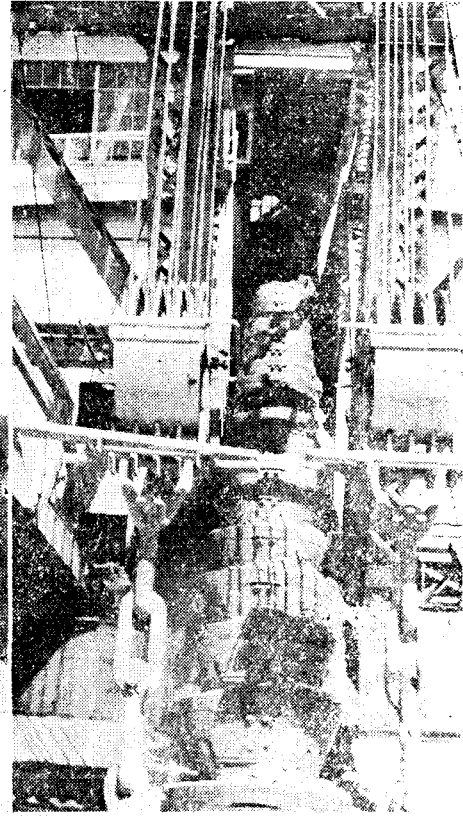
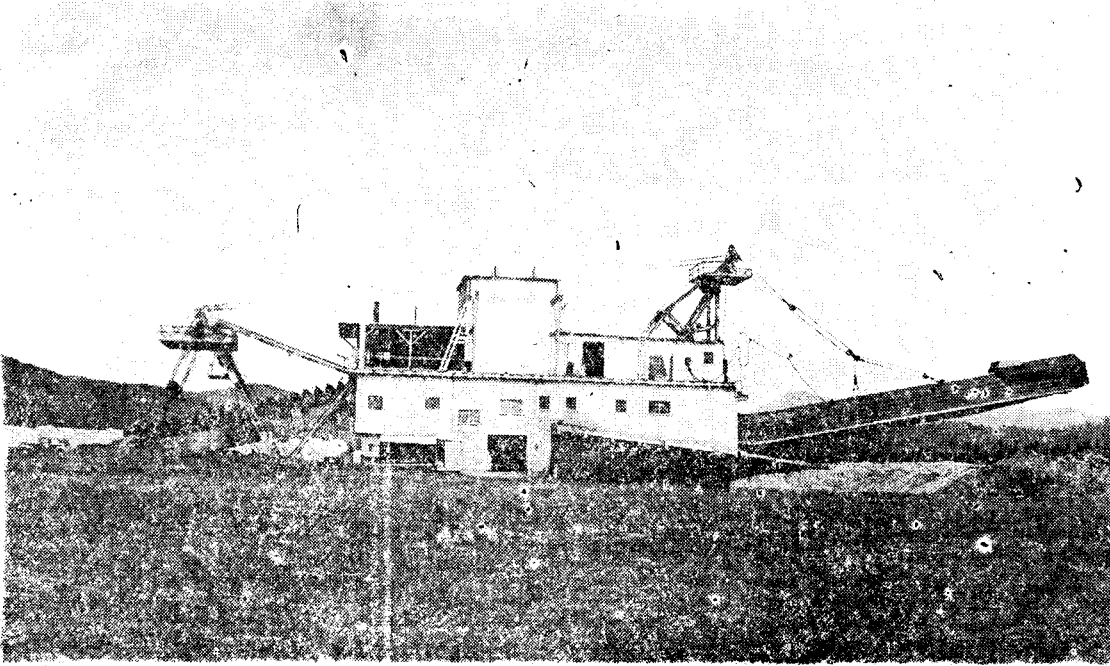
Another fact of which the company is justly proud is the condition of the water of Powder river below the operation. Mr. Cullers displayed two pint jars of water, one being taken from the river above the dredge, the other below. After shaking them thoroughly he held them up to the light. The water from below the dredge was decidedly clearer.

The samples were taken by A. H. Woodwell, assayer of Sumpter, who analyzed them and found that the water above the dredge contained 820 parts of solid per million parts of water, while the water below the dredge contained only 529 parts. In reality the dredge clears the water of Powder river, the samples would indicate.

According to Mr. Cullers, this clearing operation was accomplished by running water used in the dredge back into the tailing piles, from where it filters its way back to the river.

The dredge company will have a gold brick on display at the First National Bank again this celebration. Mr. Cullers did not know what size or value the brick would be, since it is yet to be cast from the dredge cleanup shortly before the Fourth.

# SCENES REFLECT ACTIVITIES OF SUMPTER VALLEY DREDGING CO.



Upper picture shows the giant dredge in operation. Lower—Buildings which form operating headquarters and tool houses and shops. Upper right is a close-up view of the valuable buckets used in the dredging operation. Lower right gives a general view of the bucket operation.

# Sumpter Valley

## MINING CAUSES MUCH ACTIVITY ABOUT SUMPTER

### Many Men Employed On Dredge in Powder River

### FIRM FINANCED BY OREGON MEN

### Considerable Building Done in Pioneer Min- ing Town

Increased mining activities in the Sumpter area, in which is located the largest gold dredge in the United States, with the exception of California, has almost caused a boom in the pioneer town, for houses have become scarce and building has increased to a considerable extent. The big dredge is operated by the Sumpter Valley Dredge company.

During the last four years the dredging company has spent a total of \$985,000, most of it in the county. Taxes have been paid in Baker county, which amount to \$47,000. Capital expenditures have amounted to almost \$300,000. Wages and salaries have contributed much to the payroll of the county as \$221,000 has been distributed in this region. Supplies and repairs have cost the officials of the concern about \$177,000.

Twenty-six men are employed annually. Three shifts have been working since the dredge was placed in action. During 1938 the company moved 3,442,000 cubic yards of dirt. Man hours totaled 54,780. The company also spent \$157,000, most of it in the county.

The wooden hull of the boat is 50 feet by 120 feet, with a depth of 12

feet. With the steel superstructure and machinery, it weighs 1200 tons. The stacker is 110 feet long and the bucket line contains 72 buckets, each weighing one ton.

The last state legislature passed a law forming a state sanitary committee. The commission members are working on the idea of eliminating sewage and other waste from the streams of the state. The company is cooperating with the commission to the extent that Powder river will have in it the smallest amount of waste possible. The company has recently installed a system of settling ponds, which show with actual tests that water put into the river is cleaner than the water received in the dredge pond.

The company is financed entirely by Oregon capital. The officers are as follows: W. H. Cullers, president; C. R. Jones, vice president; Harvey Dick, secretary, and D. E. Harris, treasurer.

In the Sumpter and Granite areas are located at least four doodle bugs in operation. They are owned by Atkinson, Little, Koffman and Ritchie.

The mining in the area has once again awakened the town, which was once one of the mining centers of the nation and which completely burned about 22 years ago.

Houses are scarce. The influx of people in the area has caused the erection of numerous tent houses and the building of frame houses as well.

Business conditions in Sumpter are reported the best in several years. Mining, once the mainstay of the town, is again the moving force in its resurrection.

Sample  
K. R.

## DREDGE DIGGING MUCH MATERIAL

### Three Dredges In Operation At Sumpter

For the first six months of 1940 the dredge of the Sumpter Valley Dredging Company dug an average of 290,000 cubic yards of gravel per month, according to the Oregon Mining Review, published by H. E. Hendryx. The record for a month was 328,000 cubic yards, a remarkable performance considering the winter months in the period.

The boat is the largest bucket line dredge in the state. The buckets have a capacity of 10 cubic feet.

To clear mud and silt from the water the company installed a large pump at the dredge pond two months ago. The pump is driven by electric power, which forces the water through a nine-inch pipe 3000 feet back over the gravel piles left by the dredge operation.

The system is found to work quite satisfactory, according to Mr. Hendryx, leaving the water free from mud, although somewhat cloudy. Frequent tests are made of the water to determine the volume of suspended material carried in it as a result of the dredging.

The Northwest Development Company has two dragline dredges working at Sumpter. They are the K. R. Nutting and the Little, Harris and Wellinger boats.

The Nutting operation works in the city limits of Sumpter. It uses two dredges, one for stripping and the other for digging gravel for washing. About 2000 yards of gravel pass through the washing plant. The boats have been in operation for three years and have enough ground for several more years.