THE OREGON KING MINE, JEFFERSON COUNTY, OREGON

by F. W. Libbey* and R. E. Corcoran**

The Oregon King mine, although inactive at the present time, is of particular interest, not only because its ores contained sizeable amounts of silver along with gold, copper, lead, and zinc, but the age and type of mineralization resemble the "bonanza" deposits in Nevada.

A compilation of all data available on this mine, together with a summary on the history of its development, has been published by the Department as Short Paper 23. Copies of this report may be obtained from the Department's offices in Portland, Baker, or Grants Pass for $1.00.

Introduction

The great majority of metallic ore deposits in Oregon are found in the northeastern and southwestern parts of the state, where they occur in pre-Tertiary rocks and associated granitic intrusives or as placers in adjacent stream valleys. An important exception is the silver-gold lode in central Oregon known as the Oregon King mine (see Figure 1). There the oldest rocks are early Tertiary volcanics locally intruded by rhyolitic to andesitic masses. The geology and mineralogy of this mine have some similarities to the silver deposits of the Tonopah, Nevada, district, which has produced more than 150 million dollars in silver and gold since 1900.

Until mining was halted by a shaft fire in 1950, records of the U. S. Bureau of Mines show that, during the period from 1935 to and including 1950, the Oregon King had a total production of 232,402 ounces of silver, 2,419 ounces of gold, 59,076 pounds of copper, and 110,071 pounds of lead, with 37,351 pounds of zinc reported but not recovered. In addition there was a small production from smelter shipments from 1899.

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The mine is now flooded up to the second or adit level, which is about 150 feet vertically and 173 feet on the incline below the collar of the shaft. Levels below the adit therefore cannot now be examined. Old assay reports of samples taken when the exploration work was done in the 1899-1904 period indicate the presence of ore of good quality at these lower depths. However, some conflicts and omissions in the available records are evident and, until these are clarified, definite statements regarding assay values in the early records are open to question; but because of the history of operations, especially the smelter shipments, a geologic and economic study of the property both on the surface and underground seems warranted.

Smelter returns provide the only authentic evidence of the grade of ore that may be available, but much of this information is on ore shipped by lessees from the third level and above, representing a part of the body that is presumably mined out. Ore shipped from the dump was vein material from shaft and drifts at all levels when the mine was originally developed by W. S. Thomas, mining engineer for J. G. Edwards. Smelter figures, together with assay reports of samples taken when the shaft was sunk from the surface to the sixth level, indicate an average grade that could be economic if the quantity available is proved sufficient, and if operations are conducted by experienced mining people.

The Alaska Juneau Mining Co. did extensive sampling of the mine in 1934-1935, and, although a satisfactory comparison is difficult to make, its assay results do not check well with those from the earlier exploration work under the supervision of W. S. Thomas.

The Orié and Roy claims in the so-called Roy group which borders the Oregon King group on the south (see Plate 1) appear to have mineralization similar to the Oregon King vein, and investigation might show that these claims would be a desirable addition to the Oregon King ore supply.

The Oregon King deposit has generated some interest at this time because of the world silver market situation. For the past few years the demand has substantially exceeded supply, and the United States' stock of "free" silver, that is, the domestic stock not ear-marked for currency backing and available for purchase and commercial uses, has been largely depleted. The market price for silver has risen from $0.905 to $1.04 an ounce (July, 1962). This has caused any new potential source to assume more importance. Hence attention has been directed to the Oregon King as a possibility.
Geography

The Oregon King mining property is in sec. 25, T. 9 S., R. 16 E., and secs. 30 and 31, T. 9 S., R. 17 E.W.M., Jefferson County, Oregon, approximately 3 miles by graveled and dirt roads northeast of Ashwood, which is 28 miles east of Madras, the county seat. The mine is 26 miles by road from Gateway on the Oregon Trunk Railroad.

The mining property, as shown in Plate 1, comprises 18 patented mining claims including 11 fractions. Title is held by The First National Bank of Oregon as Trustee of the J. G. Edwards estate. Total area is 293 acres, more or less, as evidenced by patent surveys made over the period 1906-1918.

The topography is hilly with V-shaped canyons having a relief in the mine area of about 300 feet. Elevation of the shaft collar is reported in Alaska Juneau records to be 3,000 feet. Aneroid reading (July 1957) was 2,940; at Ashwood it was 2,580. Contours on Plate 1 are of sketch map quality only. Drainage is westerly into Trout Creek and the Deschutes River.

Central Oregon has a semi-arid climate with extremes of temperature during the year, hot in summer and cold, often with subzero temperatures, in winter. Precipitation is small and snowfall light, but heavy precipitation for short periods is not uncommon. The rolling hills have grassy patches and sparse junipers. Grazing and wheat raising are the principal industries of the immediate area.

Geology

The Ashwood area is underlain by a complex assemblage of Tertiary volcanics and subordinate sedimentary rocks in the western part of the Blue Mountains of central Oregon. Most of the rock in the general vicinity of the Oregon King mine ranges in age from Eocene (?) to Miocene (?), and comprises at least two formations: Clarno and John Day (see map, Figure 2). The Eocene-Oligocene Clarno Formation, in which the mine is situated, is composed of lava flows and coarse volcanic breccias of porphyritic pyroxene andesite with less abundant tuff and mudstone. The John Day Formation of Oligocene to Miocene (?) age, characterized by tuff, lapilli tuff, strongly to weakly welded ash flows, and subordinate flows of trachyandesite and rhyolite, is exposed a short distance north and west of Ashwood (D. L. Peck, written communication, 1962). Rhyolitic and andesitic domes or plugs which intrude the Clarno volcanics near the mine on the Bird claim and possibly the Ella, are thought to be possible.
correlatives of rocks of similar composition which occur in the John Day Formation.

The ore zone at the Oregon King mine is associated with a fault trending N. 75° W. The dip on the fault averages about 75° S.W., but it is steeper in the lower levels of the mine, according to mapping by the Alaska Juneau Co. The andesitic rocks along the fault have been brecciated, silicified, and impregnated with quartz and pyrite, together with smaller amounts of chalcopyrite, galena, and sphalerite. Cerargyrite, silver chloride, and native silver have been reported in upper levels. Bunches of massive sulphides, largely pyrite, are occasionally found.

Reportedly, the ore occurs in lenticular pipelike masses of variable size ranging in width from a few feet to as much as 20 feet. Generally, walls of the shoots must be determined by assay. It is said that some of the shipping grade ore was difficult to distinguish visually from low grade.

History

Edwards-Thomas period (1898-1933)

It is reported that the outcrop of the Oregon King vein had long been known to herdsmen and range workers but its value was not recognized until 1898, when shepherders dug into the outcrop and found some rich silver ore. A shaft was sunk 60 feet on the outcrop in 1899 when J. G. Edwards, then half owner of the Hay Creek Ranch west of Ashwood, bought the property.

The shaft followed the vein with an initial dip of about 60° S.W. and a strike of about N. 75° W. In a report to Edwards, W. S. Thomas*, superintendent, described the vein as composed of crushed quartz and highly altered vein matter. In the upper part of the vein, silver chloride (cerargyrite) was found, as well as small amounts of native silver and a little metallic gold; both silver and gold were sometimes deposited on sulphides.

Sinking of the shaft was continued to the second level in 1900. An adit crosscut tunnel, some 470 feet long, was driven westerly from the Long Creek side of the hill to intersect the vein at the 173-foot level to aid both ventilation and the pumping load.

The shaft was sunk to the third level in 1901 and was continued to

*W. S. Thomas was a mining engineer who had attended the Missouri School of Mines. He wrote a mine report for Edwards dated Oct. 11, 1933, and much of the history related herein was obtained from a copy of it.
the fourth level where, according to the Thomas report, the vein flattened somewhat. Lateral work was done on both the third and fourth levels.

From 1901 to 1903, the mine was closed down because of litigation in the Federal courts over title. Judgment was in Edward's favor and mine development was resumed in October 1903. The shaft was sunk to the fifth and sixth levels in 1903 and 1904 and east and west drifts were run on these levels. Thomas reports that "the rich ore thins out as the sixth level is reached." He states that ore may be followed in the hanging wall side of the west drift on the sixth level to the face, a distance of 96 feet. In the face there is a "good showing" of ore. The east drift on this level shows no ore at its face although "some nodules of good ore were found scattered around in a soft white quartz near the shaft." His report continues "This ore body in the west drift on the sixth level has the greatest lateral extent of any yet found." Two samples taken later by Edwards and Thomas from the face of the west drift, March 10, 1930, as shown below are pertinent here.

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Name</th>
<th>Gold (oz)</th>
<th>Silver (ozs)</th>
<th>Copper (percent)</th>
<th>Zinc (percent)</th>
<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Special High grade Stringer</td>
<td>0.38</td>
<td>105.6</td>
<td>present</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>All of ore on hanging side of drift (&quot;30&quot; of this)</td>
<td>0.08</td>
<td>15.7</td>
<td>2.86</td>
<td>7.05</td>
<td>present</td>
</tr>
</tbody>
</table>

Ore shipments reported by Thomas: Shipments of ore from development work in the shaft between the fifth and sixth levels and from stopes "on the east and west side of the shaft between the fifth and fourth levels" were made in 1904.*

Thomas recorded "In September 1904 further litigation was threatened and the property was closed down and so remained." In 1929 Edwards re-opened the mine and made some additions to the surface plant, among which were a 125-hp diesel engine and an electric generator, together with some other electrical equipment. Shaft sinking below the sixth level * All shipments made during the Edwards-Thomas period of operation are tabulated in Short Paper 23.
was begun on April 9, 1930. When the shaft had reached the seventh level, Thomas reports: "Engine trouble had now come to be frequent and a source of annoyance, delay, and impossible expense." Operations ceased on June 20, 1930. He states that the shaft was making 25 g.p.m. when the mine shut down.

The only development work of record during the Edwards-Thomas period, other than that described, was the Ruby Tunnel driven at irregular time intervals during the early part of operations.*

Alaska Juneau period (1934-1935)

The mine was idle from 1930 to 1934, when the Alaska Juneau Mining Co. took possession under an option to purchase. Underground work was resumed and continued until the end of 1935, when the company gave up its option. As shown by the mine maps, Alaska Juneau explored underground on the fourth, fifth, and sixth levels. Whether or not Alaska Juneau measured the shaft is not recorded. The company's longitudinal cross section (Figure 3-a) scales in excess of 675 feet vertically. Smelter records show that during 1935 the company shipped 6 cars of ore containing 200 dry tons valued by the smelter at $15,374. The bulk of these shipments reportedly came from the small stopes above the fifth level (see Figure 3-a).

Rohlfing-Anderegg period (1940-1950)

Rohlfing lease: After Alaska Juneau stopped work, the mine was idle until 1940 when Edwards leased the property to Ernest Rohlfing, a Portland wheat broker with whom Edwards had previously had business dealings. The lease, besides setting a royalty, said to have been 15 percent, called for a percentage of the receipts from ore shipments to be set aside for the purchase of a mill. Rohlfing had Custer Young of Ashwood and Frank Dahlquist of Boise as partners.

Smelter shipments were started in October 1940, and the first shipments were 14 cars from the ore pile of the mine dump. Then, later, ore was shipped from the 25-foot, 50-foot, and 100-foot levels in addition to dump ore.

In May to July, 1941, metallurgical testing work was done on a sample of Oregon King ore (110 pounds) by the Denver Equipment Co. There is no record of source of the sample or how it was obtained. A report of

* See Short Paper 23 for description of Ruby Tunnel.
the test results was submitted by Denver Equipment Co. under date of July 9, 1941, together with a recommended flow sheet. The test sample assayed 0.15 ounce gold, 9.45 ounces silver, trace lead, 0.88 percent copper, 0.40 percent zinc, 6.75 percent iron, 6.09 percent sulphur, no arsenic, and 0.20 percent antimony. Bulk flotation with one cleaning of concentrate by flotation was recommended, together with tabling of flotation tailings, and table concentrates added to flotation concentrates. As reported, selective flotation did not seem advisable because a pyritic tailing carried too much gold and silver to be discarded as waste.

The mill was purchased and installation finished in July 1942. Custer Young reported that the first car of concentrates was shipped July 28, and that the mill feed was obtained from both the mine dump and the 200 level. According to the U. S. Bureau of Mines' records of production, 2,354 dry tons of ore and 261 dry tons of concentrates were shipped in 1942.

Anderegg lease: Rohlfing operated intermittently until 1945, when he sold his lease to Henry Anderegg. Young returned as superintendent in 1945 and stayed about one year. Work was somewhat intermittent as shown by smelter shipments, although some improvement is evident in early 1947. In the last half of 1947, however, some cars of ore were shipped which were too low grade to pay expenses. No record of where these shipments were mined is available. There is no record of production or other activity for 1948 or 1949.

In 1950 Frank A. McMenamin of Portland became associated with Anderegg in the management of the mine and there was a resumption of activity. In August 1950 a car of concentrates (39 tons) obtained from milling 200 tons of ore was shipped to Tacoma. The return was 23 ounces of gold and 1,886 ounces of silver plus 700 pounds of copper. This was the last shipment.

At about this time a power transmission line was put into the property by the Wasco County P.U.D. and the Oregon King has a transformer on a pole structure near the shaft.

In September 1950 a night fire which, as reported at the time, apparently started on the second level, traveled up the shaft timbers and burned the shaft house, containing hoist and compressor, and bunkers. Mr. McMenamin reported: "...the fire continued in the sulphide ore for some two weeks until we had to put in a large charge of dynamite and blast down below to shut off the air currents." The fire caused a stoppage of all mining activity, and seemingly soon thereafter the lease was canceled. Nothing has been done at the mine since.
Mining claims superimposed from plat by F.W.L.
Plate 1
TOPOGRAPHIC MAP
of the
OREGON KING AREA

Scale in feet

Contour interval 25'
Datum assumed
Figure 3a. LONGITUDINAL SECTION of the OREGON KING MINE (Alaska Juneau Mining Co.)

Projected on a S. 64° 30' E. plane

Figure 3b. SECTION of SHAFT LOOKING EAST (F. W. Libbey)
Mine Development and Production

From the records furnished by the late Louis Enderud, Edward's business manager at the Hay Creek Ranch, it appears that Alaska Juneau prepared a synthetic log of samples and assays obtained in development work under Thomas, utilizing daily report sheets which they found at the mine.*

In addition to a longitudinal section of the shaft (Figure 3-a), Alaska Juneau prepared plan and assay maps* down to and including the sixth level. These indicate that they did several hundred feet of development work, the exact amount of which cannot be determined because of incomplete knowledge of the early work. A section on the shaft looking east (Figure 3-b) was constructed by the authors to show the variation in dip of the ore zone as it was followed downward during the initial development. Alaska Juneau's maps show a total lineal footage of about 3,500 feet in the mine, including about 700 feet of shaft, up to and including 1935.

Known ore is reportedly stope d out completely above the second level, and, to a large extent, above the third level. There is no evidence of stoping on the fourth level. The Alaska Juneau longitudinal section (Figure 3-a) shows small stopes above the fifth level. They probably represent in part the source of ore mined by Alaska Juneau for shipment in 1935. An Alaska Juneau assay record sheet names the stope east of the shaft the "Wesche Stope" and the one west of the shaft "Thomas Stope." In both of these stopes some rather high gold values were recorded, and probably a higher than average gold-silver ratio. Average assays reported are as follows:

<table>
<thead>
<tr>
<th>Stope Name</th>
<th>Samples Description</th>
<th>Location</th>
<th>Width (feet)</th>
<th>Gold (ozs.)</th>
<th>Silver (ozs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wesche (east) Back 25' long</td>
<td>Hanging wall</td>
<td>2.75</td>
<td>0.74</td>
<td>44.6</td>
<td></td>
</tr>
<tr>
<td>&quot; &quot; &quot; &quot; &quot;</td>
<td>Foot wall</td>
<td>0.9</td>
<td>0.10</td>
<td>13.8</td>
<td></td>
</tr>
<tr>
<td>Thomas (west) Back 20' long</td>
<td>Hanging wall</td>
<td>3.9</td>
<td>3.18</td>
<td>24.7</td>
<td></td>
</tr>
<tr>
<td>&quot; &quot; &quot; &quot; &quot;</td>
<td>Foot wall</td>
<td>2.0</td>
<td>0.10</td>
<td>3.9</td>
<td></td>
</tr>
</tbody>
</table>

An average of 23 samples from the Wesche (east) Stope taken in the back and breast gives 0.38 ounce of gold and 29.8 ounces of silver. In the Thomas (west) Stope only two samples are recorded. They average 0.34 ounce of gold and 58.43 ounces of silver. In the short sub-level off the Thomas Stope an average of 7 samples gives 0.06 ounce of gold and

* Given in Short Paper 23.
Table 1 - Oregon King Mine. Production 1935-1950*

<table>
<thead>
<tr>
<th>Year</th>
<th>Dry Tons Shipped or Milled</th>
<th>Concentrates (Dry Tons)</th>
<th>Smelter</th>
<th>Gold (Ounces)</th>
<th>Silver (Ounces)</th>
<th>Copper (Pounds)</th>
<th>Lead (Pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1935</td>
<td>200</td>
<td>0</td>
<td>Tacoma</td>
<td>315</td>
<td>7,471</td>
<td>4,026</td>
<td>5,794 1/</td>
</tr>
<tr>
<td>1936-39</td>
<td>No production</td>
<td>0</td>
<td>Tacoma</td>
<td>329</td>
<td>20,313</td>
<td>6,000</td>
<td>18,000 1/</td>
</tr>
<tr>
<td>1940</td>
<td>1,062</td>
<td>0</td>
<td>Tacoma</td>
<td>945</td>
<td>88,823</td>
<td>14,000</td>
<td>34,000 1/</td>
</tr>
<tr>
<td>1941</td>
<td>2,348</td>
<td>0</td>
<td>Tacoma</td>
<td>333</td>
<td>56,797</td>
<td>14,000</td>
<td>20,000 2/</td>
</tr>
<tr>
<td>1942</td>
<td>2,615 3/</td>
<td>261</td>
<td>Midvale,</td>
<td>108</td>
<td>9,727</td>
<td>5,700</td>
<td>7,800 2/</td>
</tr>
<tr>
<td>1943</td>
<td>1,248 4/</td>
<td>178</td>
<td>Midvale,</td>
<td>118</td>
<td>21,234</td>
<td>8,000</td>
<td>14,000 2/</td>
</tr>
<tr>
<td>1944</td>
<td>1,561 5/</td>
<td>90</td>
<td>Tacoma</td>
<td>155</td>
<td>16,754</td>
<td>6,000</td>
<td>8,000 1/</td>
</tr>
<tr>
<td>1945</td>
<td>120</td>
<td>0</td>
<td>Tacoma</td>
<td>38</td>
<td>8,443</td>
<td>350</td>
<td>677 1/</td>
</tr>
<tr>
<td>1946</td>
<td>24</td>
<td>0</td>
<td>Tacoma</td>
<td>6</td>
<td>954</td>
<td>300</td>
<td>600 1/</td>
</tr>
<tr>
<td>1947</td>
<td>988</td>
<td>0</td>
<td>Midvale,</td>
<td>112</td>
<td>21,234</td>
<td>8,000</td>
<td>14,000 2/</td>
</tr>
<tr>
<td>1948-49</td>
<td>No production</td>
<td>0</td>
<td>Tacoma</td>
<td>23</td>
<td>1,886</td>
<td>700</td>
<td>1,200 1/</td>
</tr>
<tr>
<td>1950</td>
<td>200 6/</td>
<td>39</td>
<td>Tacoma</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Totals 10,366 568 2,419 232,402 59,076 110,071

*Adapted from U. S. Bureau of Mines records.

1/ No lead recovered at Tacoma smelter.
2/ Lead and copper, but not zinc, recovered and paid for at Midvale smelter.
3/ Includes 1,035 dry tons mine ore, and 400 tons dump ore from which was recovered 202 ounces of gold and 39,459 ounces of silver. Included also is total of 1,180 tons milled producing 261 tons of concentrates containing 313 tons of gold and 17,338 ounces of silver.
4/ Includes 98 tons of crude ore shipped from which was recovered 16 ounces of gold and 1,153 ounces of silver. Included also is a total of 1,150 tons milled which gave 178 tons of concentrates containing 92 ounces of gold and 8,574 ounces of silver.
5/ Includes 661 tons of crude ore containing 114 ounces of gold and 12,305 ounces of silver. Included also is a total of 700 tons of ore milled producing 90 tons of concentrates containing 36 ounces of gold and 4,449 ounces of silver.
6/ 200 tons milled which gave 39 tons of concentrates containing 23 ounces of gold and 1,886 ounces of silver.
7/ Zinc in concentrates shipped to Midvale amounted to 18,103 pounds. Total zinc in crude ore shipped to smelters was 37,351 pounds.
7.5 ounces of silver.

Production records of the Oregon King mine (1935-1950), adapted from statistics supplied by the U.S. Bureau of Mines, are given in Table 1. According to smelter settlement sheets, the last car of crude ore was shipped October 21, 1947. This shipment averaged $5.20 per ton and showed a debit of $284.75.

**Recent Sampling**

An inspection of the mine was made by the senior author in 1957, and samples were taken as shown in Table 2. All places sampled and inspected were tested with a scintillator. A variation in background count was recorded due to mass effect underground, but no significant radioactivity was noted anywhere.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sample Description</th>
<th>Assay</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adit, Second Level 25' section starting at pyrite seam 240' from portal.</td>
<td>Bleached, siliceous rocks. Contains sparse pyrite chips from S.W. wall.</td>
<td>Trace 0.32</td>
<td>Nil</td>
</tr>
<tr>
<td>Next 25' section beginning 265' from portal.</td>
<td>Same.</td>
<td>Trace 0.24</td>
<td>Nil</td>
</tr>
<tr>
<td>Across 5' face of cut w. of &amp; below mine dump in line with Oregon King vein outcrop.</td>
<td>Silicified, fissured iron-stained rock. No visible sulphides.</td>
<td>Trace 1.28</td>
<td>Not assayed.</td>
</tr>
<tr>
<td>Mill tailings on face of cut made by Long Creek.</td>
<td>Layered dump.</td>
<td>Trace 1.64</td>
<td>Not assayed.</td>
</tr>
<tr>
<td>Grab from &quot;ore&quot; on dump of prospect shaft on Bird claim hill E. of portal of 2nd level adit.</td>
<td>Shaft on well-defined fissure striking S. 80° E. steep dip, altered rhyolite. Specks galena in &quot;ore.&quot;</td>
<td>Trace 1.08</td>
<td>Not assayed.</td>
</tr>
<tr>
<td>Top of Ruby Tunnel winze. Well-defined foot wall.</td>
<td>Across 9' crushed quartz, pyrite and clay gouge. Few gypsum seams.</td>
<td>Trace 0.36</td>
<td>Not assayed.</td>
</tr>
</tbody>
</table>

* * * * *
DUNES AREA WITHDRAWAL PROPOSED

The Department of Agriculture has filed application for the withdrawal of lands from "location and entry under the general mining laws only" in the Oregon Dunes Recreation Area in the Siuslaw National Forest. The lands involved total 21,124 acres, or about 33 square miles along the coast in Lane, Douglas, and Coos Counties. According to the notice from the Bureau of Land Management, "The applicant desires the land for the purpose of conserving, developing, and making accessible for the inspiration, enjoyment, and use of all American people of present and future generations the recreational and scenic resources of the area."

NEW MINING SAFETY CODE

A public hearing to consider the adoption of a safety code for mining, tunneling, and quarrying is being called for 9 a.m. standard time, Thursday, August 2 by the State Industrial Accident Commission. The meeting will be held in Room 202 Labor and Industries Building, Salem. The code has been revised in accordance with recommendations received at a public hearing held May 16 and with those of a special advisory committee on quarry operations. The August 2 hearing is expected to be final, and the public is invited to be present and to offer any suggestions it feels would improve the provisions of the proposed code.

RECENT OPINIONS OF THE ATTORNEY GENERAL

Four opinions handed down by the Attorney General's office recently are of interest to the mineral industry.

In an opinion (No. 5431) requested by the State Marine Board, the Attorney General advised that the Board has no regulatory powers which would require skin divers to use a diver's flag when diving or to remain within a stated distance of such flag while submerged.

Areas of control of the state's ground water, requested by the State Engineer, were clarified in an opinion (No. 5435) by the Attorney General on May 11. The lengthy opinion is summarized by the Attorney General as follows:

"It is therefore our opinion that even though the Legislative Assembly has expressed the policy that the state water resources program be coor-
ordinated under a single state agency, the same legislature specifically per-
mitted the control and use of ground water to remain in the State Engineer.
It is further our opinion that the classification of ground water by the State
Water Resources Board in the Deschutes and Upper Willamette River Basins
does not restrict the ground waters to any particular classified use."

In a third opinion (No. 5441) requested by Columbia County, the
Attorney General concluded that reserved mineral interests must be sepa-
rately listed and assessed for ad valorem tax purposes, even though no
minerals are known to exist. The valuation should, however, be nominal
unless the existence of an actual value of the reserved rights can be es-
tablished. The reserved mineral interest is a tangible property interest,
while right of entry retained in connection therewith is intangible.

According to a fourth opinion (No. 5452), "Oregon acquired title
to the beds of all navigable waters within its borders upon admission into
the Union. The state has power to sell or lease tidelands in its proprie-
tary capacity and holds the submerged lands in its sovereign capacity in
trust for the public. A riparian owner has a right incident to the land to
wharf out to navigable water subject however to control and regulation
by the state. Waters including wharves within port districts are subject
to control and regulation by the port with the same power and authority
as lies in the State of Oregon. A wharf has been defined to include a
bank or earth fill."

* * * * *

WELL RECORDS RELEASED IN OPEN FILE

<table>
<thead>
<tr>
<th>Company &amp; Well</th>
<th>County</th>
<th>Depth</th>
<th>Records</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ross Mitchell &amp; Assoc.'s</td>
<td>Polk</td>
<td>430'</td>
<td>Driller's Log</td>
</tr>
</tbody>
</table>
| Bliven No. 2
  Sec. 10, T. 8 S., R. 5 W. |        |       | Cuttings*             |
|                         |        |       |                       |
| Ross Mitchell & Assoc.'s| Polk   | 580'  | Driller's Log         |
| Bliven No. 3
  Sec. 10, T. 8 S., R. 5 W. |        |       | History               |
|                         |        |       | Cuttings*             |
|                         |        |       |                       |
| Ross Mitchell & Assoc.'s| Polk   | 340'  | Driller's Log         |
| Adams-Bliven No. 4
  Sec. 15, T. 8 S., R. 5 W. |        |       | Cuttings*             |

*Available for study at the Portland office, State of Oregon Department
of Geology and Mineral Industries.

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HATFIELD ENDORSES MINING RESOLUTIONS

At the Western Governors' Conference in Anchorage, Alaska, May 2-5, 1962, Governor Mark O. Hatfield of Oregon joined with the other governors in adopting resolutions proposed by the Western Governors' Mining Advisory Council to aid the mineral industry. Resolutions adopted are as follows:

Discovery requirements: Changing concepts of what constitutes a "discovery" applied by government agencies in their contesting the validity of mining claims has led to an increasing insecurity of the right of a claim holder to develop a metallic mineral deposit. The "prudent man concept," established early in the life of our present mining law by numerous court decisions, has been changed by government administrative decisions. They now tend to require a "present marketability test," as in common nonmetallics, and which is not a practical or fair test for a metal discovery. It is also not consistent with the fundamental theory or intent of the mining law. In our proposed resolution on discovery requirements, we recommend your approval and action on the following three items: (1) return of government agencies to the original judicial concept of discovery requirements applicable to metallic minerals; (2) legislation requiring the federal government to act in claim contests within a time limit, thereby granting the claimant the same right enjoyed by the government under the Multiple Use Act; and (3) passage of H.R. 1960 to allow proceedings by a claimant against the government to be carried out in his own District Court, rather than in Washington, D.C.

Gold: We recommend incentive or subsidy payments to cause an increase in the production of gold. This will benefit the balance of gold in our United States Treasury as well as the gold mining industry. The outflow of gold from the Treasury threatens the value of the dollar and the safety of the Treasury against a run by foreign creditors which could completely drain it. We recommend your opposition to any further decrease of the required gold backing for paper currency as a measure inimical to the best interests of the nation.

Silver: Last fall, President Kennedy directed the Treasury to stop selling its disposable silver stocks and to retire $5 and $10 silver certificates to meet coinage requirements. At the same time he recommended legislation to accomplish the following three objectives: (1) deletion of the silver transactions tax from the Internal Revenue Code; (2) repeal of the Silver Purchase Acts; and (3) replacement of silver certificates by $1 and $2 Federal Reserve notes. In our silver resolution presented for your approval, we recommend approval of the first listed objective and opposition to the second and third. As mentioned earlier, repeal of the Silver Purchase Acts would add further confusion and uncertainty to a presently unstable market condition. The replacement of silver certificates by Federal Reserve notes creates a greater total of currency which must be backed by gold, thereby placing our gold reserves in further jeopardy.
Import controls: The WGMAC recommends your approval of import controls by means of adequate duties or quotas and under certain price conditions for the protection of the western mining industry against low-cost foreign minerals.

Resolutions for many other specific minerals were also approved and adopted. Those of greatest interest to Oregon miners are as follows:

Lead and zinc: Adequate import controls be established (either tariff or quotas or a combination of the two) to be effective only if and when unneeded imports depress the United States market prices below a reasonable legislated peril point level required for the maintenance of a healthy domestic industry.

Mercury, fluorspar and cobalt: Tariff be imposed on imports to preserve something over one-half of the domestic market for mercury and fluorspar producers, and something slightly less than one-half for domestic cobalt producers.

Antimony, chrome, manganese, columbium and tantalum: Small excise taxes (or tariffs) be imposed on foreign imports of these metals, the proceeds from which should be sufficient when distributed among United States producers to maintain a healthy nucleus of domestic production of these strategic metals.

In his presentation to the Western Governors, James Williams, Chairman of the WGMAC, noted that the Council was in its 10th year of service to the governors and stated that its past predictions on the probable happenings to the western strategic metal mining industry, if certain actions or precautions were not taken, had turned out to be quite accurate. He reported that the critical and strategic mining industry of the western states is declining and will continue to decline under prevailing conditions and circumstances.

"This decline," Williams said, "includes the number of operations, number of jobs, and the ability to supply the present or future mineral requirements of our country in case of emergencies." He continued, "To illustrate the decline in some of the strategics, not a mine in the West now produces, except as a minor by-product, any of the following metals: chromium, cobalt, antimony, or columbium-tantalum. A few years ago, western mines produced from 10 to 95 percent of the United States' requirements of these metals. Five out of 20 mercury mines are now operating. Tungsten is down to two mines from over 300. Lead-zinc mining is uncertain."

Members of the WGMAC for Oregon are: Fayette I. Bristol, Rogue River; Harold Banta, Baker; Hollis M. Dole, Portland; William W. Gardner, Canyon City; Clinton P. Haight, Jr., Baker; Pierre R. Hines, Portland; Bruce J. Manley, Medford; and Frank C. McCulloch, Portland.

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PIEREN APPOINTED BY GOVERNOR

John W. Pieren, Grants Pass, was appointed to the Rogue River Coordination Board by Governor Hatfield on June 27, 1962, to fill the position made vacant by the death of J. E. Bartlett.

Mr. Pieren has lived in Grants Pass since 1949. He owns the Almeda, Golden Wedge, and Greenback mines, and the Columbia (in part), Cal-Ore group, Dean, Leopold group, and Sardy placer mines. His placer mining has been chiefly on the Leopold group on the North Fork of Galice Creek. He has done some exploration and development work in recent years on the Greenback lode mine, a former major producer in southwestern Oregon, and has installed a small mill on the property. He was a charter member and first president of the Josephine County Sourdoughs, a recently formed mining organization in Grants Pass, and was re-elected to a second year as president in January.

J. E. Bartlett, who died May 11, was a long-time mining member of the Rogue River Coordination Board. He was appointed to the board by Governor Snell in June 1943 and was still serving in this capacity at the time of his death. He owned and operated the Big Four Placer in the Grants Pass Mining District until government closure in 1942. He was active in chrome mining during World War II as part owner of the Doe Flat mine in northern California.

Mr. Bartlett, known to all his friends as "Slim," will be remembered for his fairness and his steadfast defense of the rights of placer miners in disputed matters involving muddying of waters of the Rogue River. He was recognized as a devoted conservationist and headed the campaign against "litter bugs." As an ardent fisherman and sportsman, he was a past president of the Isaac Walton League.

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GROUND WATER REPORTS LISTED

"List of Reports Pertaining to Ground Water in Oregon," compiled by B.L. Foxworthy, has been issued by the U.S. Geological Survey. The 13-page booklet brings up to date a similar publication prepared in 1956 by R. C. Newcomb. Recorded are all published documents, open-file reports, and reports in preparation by the U.S. Geological Survey, as well as publications by other agencies and articles in journals. Copies of the list may be obtained free of charge from U.S. Geological Survey Ground Water Branch, Oregon District Office, Room 415 Old Post Office Bldg., Portland.

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