

# Oil and Gas Exploration in Idaho, 1983-1984

Roy M. Breckenridge

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Idaho Geological Survey  
University of Idaho  
Moscow, Idaho 83844

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# OIL AND GAS EXPLORATION IN IDAHO, 1983-1984

by  
Roy M. Breckenridge<sup>1</sup>

## INTRODUCTION

This report updates previous oil and gas activity in Idaho (Breckenridge, 1980, 1982, 1983). Exploration for oil and gas in the state has increased during this last year. Nine new permits to drill were added. Four holes were drilled and plugged, three in Bear Lake County and one in Bonneville County. As of this date, the state is still without a petroleum discovery.

## THRUST BELT

Drilling activity and geophysical exploration centered on the southeast Idaho part of the thrust belt adjacent to producing areas in Utah and Wyoming. Seismic exploration of this area continued at a high level with a number of crews reported in the area.

The map in Figure 1 shows the current status of drilling and permits in the state.

In Bonneville County, Amoco completed its Bald Mountain Federal No. 1 at 9,080 feet, a dry hole in the Jurassic Nugget Formation about 1 mile from the Bald Mountain Federal No. 2 drilled in 1981.

In Bear Lake County, Sohio's Sweetwater No. 5-13, an 11,617-foot Mississippian test was completed dry, and Sohio's Bishoff Canyon No. 30-A was deepened to 15,272 feet and plugged. Murphy Oil plugged its test in Bear Lake County at 7,493 feet.

During the last year interest in state oil and gas leases declined, partly due to depressed prices. Overall activity in the Wyoming and

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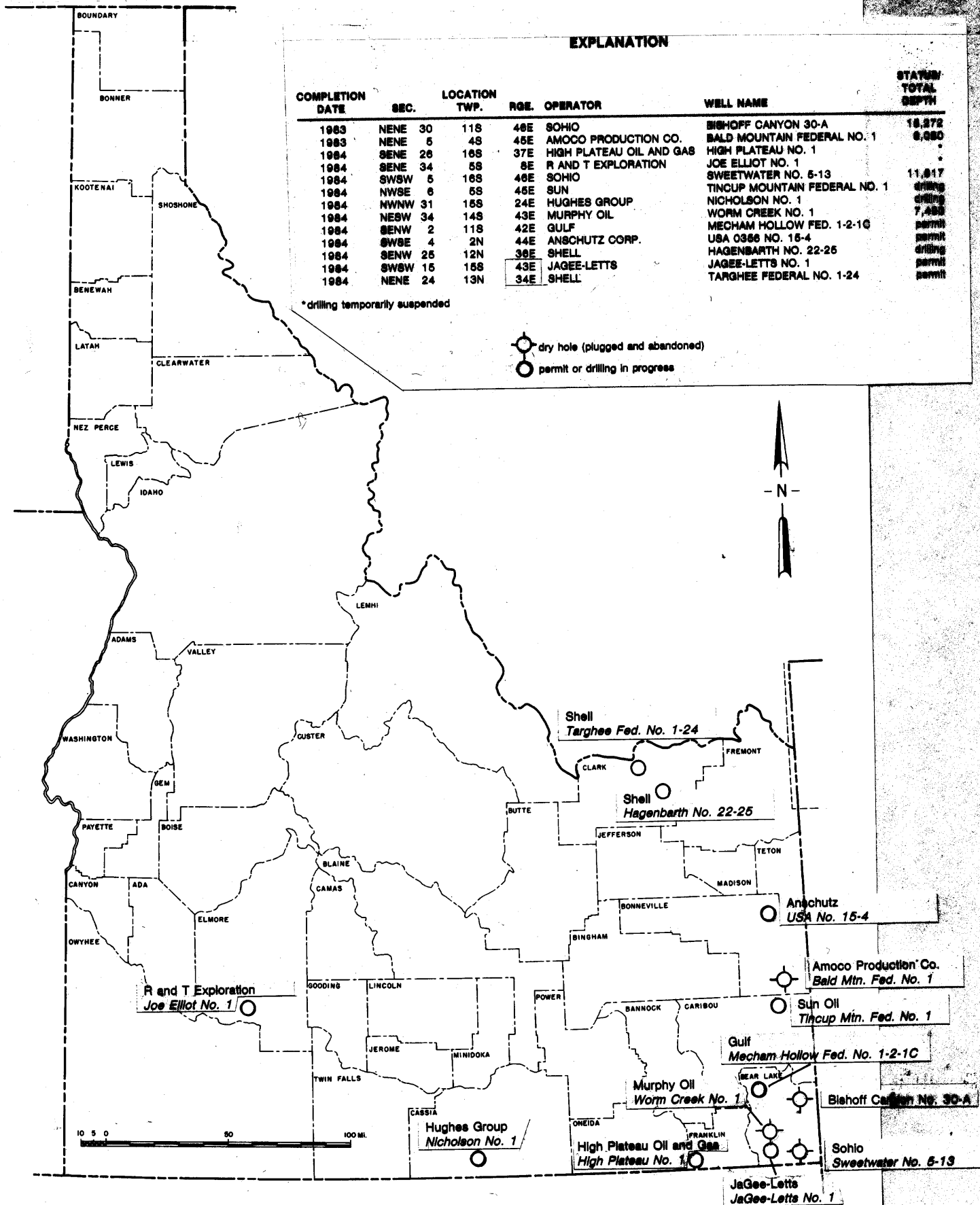


Figure 1. Oil and gas exploration in Idaho (1983-1984) by Roy M. Breckenridge.

Utah part of the thrust belt also slowed. Lack of drilling has resulted in a large surplus of drilling rigs in the Rocky Mountain region. Some development is underway around existing discoveries, but the currently low gas prices are not a favorable stimulus for exploration.

#### NORTHERN IDAHO

After a flurry of leasing last year that resulted in over 1.5 million acres being leased in northern Idaho, interest has focused on Montana drilling. Geologic formations in northwestern Montana remain to be tested, and controversy continues regarding the nature of thrusting. Seismic data shows indications of large structures. Stratigraphic drilling is "tight hole" and now may be held confidential for up to three years, compared to a six-month period for exploration drilling. The major drilling effort is the \$7.5 million Atlantic-Richfield's Arco Gibbs No. 1 (NW $\frac{1}{4}$ NW $\frac{1}{4}$ , sec. 2, T. 28 N., R. 27 W.) in Flathead County, Montana. The well was recently classed as exploratory. The target is 18,000 feet beneath a thrust of Belt rocks. Marathon Oil is a partner with Atlantic-Richfield.

#### WELL SAMPLES

Under a new agreement endorsed by the Idaho Petroleum Council, the Idaho Geological Survey will now receive copies of electric logs from new drilling in the state. The logs will be released to IGS by the Idaho Oil and Gas Conservation Commission after the proprietary period has expired. The logs and donated well cuttings of a few wells are on repository at IGS's office at the University of Idaho. They can be inspected at the facility. Data available are listed in Table 1; all other electric logs are on file at the Idaho Oil and Gas Conservation Commission at 702 River Avenue, Coeur d'Alene, Idaho.

The IGS hopes that the core library can be increased with additional donated cuttings.

Table 1. Idaho Oil and Gas Well Log Samples on Repository at the Idaho Geological Survey.

OPERATOR/WELL NAME	COUNTY	LOCATION	TOTAL DEPTH (feet)
Chevron USA Inc. Dunn's Canyon Federal No. 1-22*	Bear Lake	sec. 22, T. 11 S. R. 44 E.	13,546
American Quasar North Rabbit Creek No. 6-21*	Bear Lake	sec. 6, T. 16 S. R. 46 E.	11,603
Union Texas Petroleum Big Canyon Federal No. 1-13	Bear Lake	sec. 13, T. 10 S. R. 43 E.	11,734

\*Electric log also on file

#### REFERENCES

- Breckenridge, R. M., 1980, Oil and Gas Exploration in Idaho: Idaho Bureau of Mines and Geology Map 2, scale 1:1,000,000.
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