

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Jackson and Dahl
Nelson Gilmour #1
Permit #62
Unique #36-047-20002
Sec. 24, T. 9 S., R. 4 W.
Marion County

1585'

Suspended. Probably will
deepen.

William Craig -
Producers Oil & Gas Co.
Permit #61
Gilmour #2
Unique #36-047-20001
Sec. 24, T. 9 S., R. 4 W.
Marion County

1565'

Formation testing. Attorney
General's office is asking
Craig to assume responsibility
for work on his drilling
or to plug and abandon the
hole.

R. F. Harrison -
Central Oils, Inc.
Morrow #1 - Deepening
Permit #60-D
Unique #36-031-00003
Sec. 18, T. 12 S., R. 15 E.
Jefferson County

3300'
(Old T.D.)

Work suspended.

OREGON - Offshore

No activity in December.

WASHINGTON - Onshore

No drilling wells.

WASHINGTON - Offshore

No activity in December.

OIL ACTIVITY IN THE NORTHWEST

OREGON -- Onshore

Jackson and Dahl
Nelson-Gilmour No. 1
Permit 62
Unique No. 36-047-20002
Sec. 24, T. 9 S., R. 4 W.
Marion County

1585'

Idle. Looking for bigger
rig.

William Craig -
Producers Oil & Gas Co.
Gilmour No. 2
Permit 61
Unique No. 36-047-20001
Sec. 24, T. 9 S., R. 4 W.
Marion County

1565' T.D.

Preparing to abandon.

R. F. Harrison -
Central Oils, Inc.
Morrow 1 - Deepening
Permit 60-D
Unique No. 36-031-00003
Sec. 18, T. 12 S., R. 15 E.
Jefferson County

3300'
(Old T.D.)

Will abandon as soon as
weather permits.

Another major lease play developed at the close of the year when Standard of California began acquiring leases in Crook, Harney, and Malheur Counties. Early reports indicate more than 100,000 acres are involved in the project.

OREGON -- Offshore

No activity this winter.

WASHINGTON -- Onshore

Standard of California is reportedly planning a drilling venture north of Seattle and has land agents in the area. Mobil and Shell may also be planning test drilling in western Washington this year.

WASHINGTON -- Offshore

Western Geophysical Co. of California has been making surveys in the Puget Sound area and will make its studies available to interested firms.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Jackson and Dahl
 Nelson Gilmour 1
 Permit 62
 Unique No. 36-047-20002
 Sec. 24, T. 9 S., R. 4 W.
 Marion County

1585'

Idle, no report.

William Craig -
 Producers Oil & Gas Co.
 Gilmour 2
 Permit 61
 Unique No. 36-047-20001
 Sec. 24, T. 9 S., R. 4 W.
 Marion County

1565'

Will plug and abandon.

R. F. Harrison -
 Central Oils, Inc.
 Morrow 1 - Deepening
 Permit 60 D
 Unique No. 36-031-00003
 Sec. 18, T. 12 S., R. 15 E.
 Jefferson County

3300'
 (Old T.D.)

Will plug and abandon.

Standard has continued to build on its four lease blocks in Crook, Harney, and Malheur Counties. The lease areas can be separated as follows: adjacent to Texaco acreage, west of Burns, north end of Steens Mountain, and north of the town of McDermitt.

Oregon - Offshore

No activity in February.

WASHINGTON - Onshore

Leasing activity north of Seattle.

WASHINGTON - Offshore

Western Geophysical Corp. continued making its studies of Puget Sound.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Jackson and Dahl Nelson Gilmour 1 Permit 62 Unique No. 36-047-20002 Sec. 24, T. 9 S., R. 4 W. Marion County	1585'	Still suspended. Work stopped 10-2-70. Six months have elapsed so the operator must show cause for further delay of drilling or proceed with abandonment.
William Craig - Producers Oil & Gas Co. Gilmour 2 Permit 61 Unique No. 36-047-20001 Sec. 24, T. 9 S., R. 4 W. Marion County	1565'	Plugged on 3-19-71. The hole will be observed for a few weeks before releasing the drilling bond since it was flowing gassy salt water at the time of plugging.
R. F. Harrison - Central Oils, Inc. Morrow 1 - Deepening Permit 60 D Unique No. 36-031-00003 Sec. 18, T. 12 S., R. 15 E. Jefferson County	3300' (Old T.D.)	No new hole drilled on this pro- ject. Abandonment pending.

Leasing is continuing in Klamath and Lake Counties of geothermal prospects by four companies. A recent tax decision regarding change of land status because of mineral leases has many ranchers in a quandary as to whether leasing will be a gain or a loss to them. The Legislature is considering a bill now which would exempt mineral leases in determining land use classification.

OREGON Offshore

<u>Company</u>	<u>O.C.S.</u>	<u>State</u>
Humble Oil & Refining Co.	April 1971	---
Standard of California	--	Sept. 1971
*Texaco, Inc.	November 1971	---

WASHINGTON - Onshore

No active wells. Drilling is reportedly planned by Standard of California on Whidbey Island in northwestern Washington this summer.

WASHINGTON - Offshore

Refusal of the Division of State Lands to lease portions of the Puget Sound last fall because of pressure by wildlife groups resulted in cancellation of drilling programs in and adjacent to the Sound.

* Texaco renewed its OCS permit in April for 6 months.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Jackson-Dahl
Nelson Gilmour 1
Permit 62
Sec. 24, T. 9 S., R. 4 W.
Marion County

1585'

Resumed operations 6-1-71.
Preparing to deepen. Installed
Reagon Head.

William Craig
Gilmour 2
Permit 61
Sec. 24, T. 9 S., R. 4 W.
Marion County

1565'

Plugged and abandoned in March.
Checked top plug 6-2-71, found
no leakage.

R. F. Harrison -
Central Oils, Inc.
Morrow 1 - Deepening
Permit 60-D
Sec. 18, T. 12 S., R. 15 E.
Jefferson County

3300'
(Old T.D.)

Abandonment pending.

Texaco field crew returned to eastern Oregon in May to resume geological and geophysical studies. Texaco will probably begin drilling by midsummer.

OREGON - Offshore

No activity in May.

WASHINGTON - Onshore

No activity at present

WASHINGTON - Offshore

Western Geophysical is running seismic surveys in Puget Sound.

Marshall Huntting, Director of the Washington Division of Mines and Geology, has announced his resignation effective June 30, 1971. No successor has yet been named.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Jackson and Dahl
Nelson Gilmour #1
Permit 62
Sec. 24, T. 9 S., R. 4 W.
Marion County

1603' T.D.

Hole deepened from 1565' to 1603' in June. Plugged and abandoned 6-29-71. Board granted release of drilling bond.

Wm. Craig -
Producers Oil & Gas Co.
Gilmour #2
Permit 61
Sec. 24, T. 9 S., R. 4 W.
Marion County

1565' T.D.

Salt water flow was stopped by pumping in heavy mud. Hole was plugged and abandoned 3-19-71. Board released bond after a 3-month observation period.

R. F. Harrison -
Central Oils, Inc.
Morrow 1 - Deepening
Permit 60-D
Sec. 18, T. 12 S., R. 15 E.
Jefferson County

3300' T.D.

No new hole made during the deepening. Lost circulation problems and lost tools in hole. Plugged and abandoned 8-9-71. Plugging affidavit submitted.

Texaco, Inc.
Federal #1
Permit 63
Sec. 31, T. 17 S., R. 23 E.
Crook County

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Preparing road and moving in equipment. Contractor will be Loffland Bros. Drilling Co. of Bakersfield. The rig is a new one designed for drilling on the North Slope, depth capacity 20,000 feet.

OREGON - Offshore

Standard Oil of California was granted a two-year extension of its geophysical permit by the Division of State Lands in August.

WASHINGTON - Onshore

The State Department of Natural Resources announced a lease sale for September 28, 1971 covering 43,000 acres of land in northwestern Washington. Odessa Natural Gas Corp., a Texas gas producer, filed for the leases on six townships in the Hoh River and Forks area west of the Olympia National Park. The leases are in an area where previous drillings have been made.

WASHINGTON - Offshore

No new activity.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

R. F. Harrison -
Central Oils, Inc.
Morrow 1 - Deepening
Permit 60-D
Sec. 18, T. 12 S., R. 15 E.
Jefferson County

3300'
(Old T.D.)

Hole plugged and abandoned. Department had Harrison re-weld plate on casing stub as first job was only tack welded. Released bond.

Texaco, Inc.
Federal 1
Permit 63
Sec. 31, T. 17 S., R. 23 E.
Crook County

(No dope)
Hole

Texaco has run and cemented 16" surface casing. An intermediate string of 10½" casing will be set. The driller's log is being air mailed to Los Angeles every day. No records are being kept at the well. Pertinent data collected thus far are held in the confidential file.

Three companies have had geologic field crews in Oregon this past summer. Studies covered areas in central and western Oregon.

Even though Texaco, Inc., has been exceptionally careful to notify and cooperate with all agencies involved with drilling on federal land, it has been accused of ignoring concern for the environment by the Oregon Environmental Council. Texaco has filed the necessary data with the U.S. Bureau of Land Management according to our conversations with representatives from BLM (Dick May, USBLM District Office, Prineville).

OREGON - Offshore

No activity reported this month.

WASHINGTON - Onshore

Trend Exploration Ltd. and Cities Service Oil Co. submitted competitive bids for leases in King and Pierce Counties of northwestern Washington.

Union Oil Co. has applied for county leases in Grays Harbor County.

WASHINGTON - Offshore

No activity reported.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Texaco, Inc.
Federal 1
Permit 63
Sec. 31, T. 17 S., R. 23 E.
Crook County

No dope
hole

Drilling ahead after setting 10½" intermediate casing string. Security regarding information on this test is the tightest of any wildcat ever drilled in the State; however, the Texaco drilling superintendent is greeting visitors cordially and conducting tours of the operation.

A hearing was held at the regional office of the U.S. Bureau of Land Management in Portland on October 21, 1971 to review a request by the Oregon Environmental Council to shut down the Texaco drilling until a complete environmental impact statement is filed with the Federal Environmental Protection Agency. Mr. Archie Craft, Regional Director of the Bureau of Land Management, told the group that no major action was involved in this instance so an impact study was not necessary. The problem was resolved at the hearing and the Oregon Environmental Council conceded that a shut-down probably was not necessary but its representatives were able to obtain an agreement from Mr. Craft that a full impact statement would be forthcoming in the event Texaco made a discovery (this is probably a precedent for oil operations on land areas in the U.S.).

OREGON - Offshore

Texaco, Inc., extended its geological and geophysical exploration permit to April 1972 on federal OCS lands off the coast of Oregon.

WASHINGTON - Onshore

State lands in Pierce and King Counties awarded through competitive bidding brought between \$1.00 and \$3.25 per acre from Cities Service Oil Company and Trend Exploration, Ltd. Standard, Mobil, and Union hold sizable lease blocks in northwestern Washington.

WASHINGTON - Offshore

No activity reported in October.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Standard Oil Company is conducting seismic studies in the Snake River Basin of western Idaho and eastern Oregon. Numerous gas shows in the basin have stirred many past drilling ventures.

Texaco has released the Loffland Bros. rig at its Crook County site. Loffland reportedly obtained a contract in the Rocky Mt. area. No more drilling is anticipated by Texaco in Oregon in the near future.

At the beginning of each new year it is customary to speculate on prospects for future exploration but the future of domestic exploration is in a precarious state with all of U.S. lands essentially under freeze to oil exploration. The freeze includes Alaska, the Pacific continental shelf, the Atlantic continental shelf, and now the requirement that if any substantial objection is raised concerning oil development on federal lands anywhere, a complete environmental study is to be made. Similar studies in Alaska have delayed work there for the past four years. The fact is that beginning in 1972 no oil exploration is authorized on federal lands without the prospect of costly, lengthy delays.

OREGON - Offshore

Texaco, Inc.	Offshore exploration permit	April 1972 (federal)
Standard Oil Company	Offshore exploration permit	Aug. 1973 (state)

WASHINGTON - Onshore

Union Oil is reportedly planning another test in Grays Harbor County. The last drilling done by Union in Washington was on submerged lands near Grays Harbor.

WASHINGTON - Offshore

No activity last month.

OIL ACTIVITY IN THE NORTHWEST

OREGON

Loffland Bros. Drilling Company, contractor on the Crook County Texaco hole, has received the contract to drill for Mobil Oil in northwestern Washington. The rig was stacked at the Texaco site until recently.

There are 150,000 acres of oil and gas lease applications covering lands in eastern Oregon awaiting approval of the U.S. Bureau of Land Management. The regional office is awaiting a decision from Washington on impact statements.

A hearing on proposed geothermal regulations is scheduled at Klamath Falls on February 29, 1972.

A National Oceanic and Atmospheric research team has discovered a deep sedimentary trench on the continental slope of Oregon and Washington. The sedimentary basin holds prospects prospects for oil deposits but water depth is 5000 to 6000 feet in that region (The Oregon Journal, Feb. 8, 1972).

WASHINGTON

Mobil Oil Co.
Kingston No. 1
Unique No. 035-00010
Sec. 26, T. 27 N., R. 2 E.
Kitsap County

Moving in Loffland Bros. equipment. Test is scheduled to go to 10,000 feet.

Union Oil Company is reportedly planning a 5000-foot test near the Mobil location in the next month or two. Standard will probably drill also this year on its leases north of Seattle.

OIL ACTIVITY IN THE NORTHWEST

OREGON

No active permits in February.

A hearing was held in Klamath Falls on February 29, 1972, to review proposed geothermal regulations. The Water Well Drillers Association of Oregon stated it believed the drilling of prospect holes should be under the jurisdiction of the State Engineer. Final regulations should be ready in 60 days.

WASHINGTON

Mobil Oil Co.
Kingston #1
No. 035-00010
Sec. 26, T. 27 N., R. 2 E.
Kitsap County

3000'

Drilling. Objectives are Oligocene and Eocene sands. Total depth to be approximately 10,000'. Loffland Bros. is contractor.

Union Oil Co.
Kitsap Peninsula

Union is planning a 5000' test at the northern end of Kitsap Peninsula. Drilling should start in March. Taylor Drilling is to be the contractor.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

No active permits in March.

Status of U.S. Bureau of Land Management Oil and Gas Leases

Texaco	Crook County	Renewal date, June 1972
Standard	Crook County	Paid, January 1972
Standard	Harney and Malheur Counties	Pending USDI approval
Mobil	(Western Oregon ?)	Paid, 1972
Amoco	Crook County	Pending USDI approval

Environmental clearance will be required from wildcat drilling on all Federal lands. This will involve at least a 30-day review and probably a longer period before clearance is given (Oil and Gas Journal, March 20, 1972, p. 41).

OREGON - Offshore

Texaco renewed its permit to conduct geophysical studies on Federal submerged lands of the Oregon coast. The permit was extended to October 6, 1972. Standard Oil of California has a permit covering geophysical exploration on State submerged lands which expires in August 1973.

WASHINGTON - Onshore

Mobil Oil Co. Kingston #1 No. 035-00010 Sec. 26, T. 27 N., R. 2 E. Kitsap County	8000'	Drilling. Projected total depth is 10,000'.
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Union Oil Co. Pope & Talbot #18-1 No. 035-00011 NE $\frac{1}{4}$ sec. 18, T. 27 N., R. 2 E. Kitsap County		Should begin soon. Moving in equipment, delayed by mud. Projected depth of 7000'.
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Standard Oil Co. King County		Location approximately sec. 26, T. 27 N., R. 4 E. Town lot location in north Seattle. There are already some complaints from environmentalists concern- ing drilling in the populated area.
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OIL ACTIVITY IN THE NORTHWEST

OREGON

Reference to filing of impact statements for federal lands made in last month's report should be corrected: Exploratory wells on federal lands may require impact statements if the U.S. Geological Survey Regional Oil and Gas Supervisor finds one is required. No 30-day waiting period is necessary. The policy for handling wildcat drilling on federal lands is still under study in the U.S. Department of Interior. A USGS order of November 19, 1971 has been cancelled and the matter of impact statements referred to a March 11, 1972 order from which the above policy is quoted.

The proposed geothermal regulations have been revised and final regulations should be ready by June 1, 1972, after being approved by the Governing Board of the State Department of Geology and Mineral Industries.

WASHINGTON

Mobil Oil Co.
Kingston #1
No. 035-00010
Sec. 26, T. 27 N., R. 2 E.
Kitsap County

8200'

Pipe stuck. Salt water entry reported at approximately 3000 feet.

Union Oil Co.
Pope & Talbot No. 18-1
No. 035-00011
Sec. 18, T. 27 N., R. 2 E.
Kitsap County

500'

Set surface casing. Drilling ahead.

Standard of California
Briar suburb of Seattle
King County

Briar local government issued Standard a 120-day permit to conduct drilling operations within the city limits.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

No active permits in May

The department staff is working with the Bureau of Land Management in drafting an impact statement for oil and gas exploration in Oregon. Standard Oil of California has assembled a federal unit (approx. 200,000 acres) in southern Malheur County. If the impact statement is cleared this summer, Standard will probably begin drilling the Blue Mountain Unit.

Gulf Oil Corporation is continuing to acquire acreage in Klamath County and Lake County. The Federal geothermal impact statement has been proposed and should be cleared this summer. Gulf is expected to begin drilling Oregon prospects if the statement is approved.

Mobil Oil Company began vibroseis work in the central Willamette Valley late in May. Western Geophysical is the contractor.

OREGON - Offshore

Only sporadic oil and gas activity has taken place off the Oregon coast since 1967. Texaco and Standard have maintained offshore exploration licenses over the past 4 or 5 years.

WASHINGTON - onshore

Mobil Oil Company Kingston #1 No. 035-00010 Sec. 26, T.27N, R.2E Kitsap County	8,700' TD	Abandoned, lost pipe in the hole Unable to reach objectives.
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Union Oil Company Pope & Talbot No. 18-1 No. 035-00011 Sec. 18, T.27N, R.2E. Kitsap County	4,500' TD	Abandoned in May. Objective was set at 7,000'.
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Standard Oil Company Schroeder #1 Sec. 26, T.27N, R.4E. Snohomish Co.		Location graded, moving in Loffland Bros. equipment. Prepare to spud. Site is situated on the limits of north Seattle. Objective is Upper-Eocene sands.
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Canartic Resources, Inc. 500'
Orting #1
No. 053-0009
Sec. 31, T.19W, R.5E
Pierce County

Drilling. Spud 5-14-72.
Objective is Upper-Eocene sands
(Puget Group)

Trend Exploration, Ltd. conducted Vibroseis surveys in area east of
Tacoma in May. Western Geophysical was the contractor.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

No active drilling permits. Drilling and leasing on federal lands in Oregon are at a standstill pending completion of an environmental analysis by the U.S. Bureau of Land Management. The projected completion of the analysis is sometime next winter.

Mobil Oil Co. is continuing vibroseis surveys in the Willamette Valley in late June after finishing about three weeks of work in Washington.

OREGON - Offshore

No activity.

WASHINGTON - Onshore

Standard Oil Co.
Schroeder #1
Sec. 26, T. 27 N., R. 4 E.
Snohomish County

2000'

Surface casing set at approximately 1200'. Loffland Bros., contractor. Same Arctic rig used on the Texaco central Oregon hole.

Canarctic Resources, Inc.
Orting #1
Sec. 31, T. 19 N., R. 5 E.
Pierce County

500'

Stuck pipe - abandoned hole.

Canarctic Resources, Inc.
Orting #2
Sec. 31, T. 19 N., R. 5 E.
Pierce County

600'

Moved rig over and started new hole. Preparing to abandon. The hole reportedly never got out of Pleistocene glacial gravels.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

The Department conducted geophysical studies in Malheur in July under the supervision of Dick Bowen, economic geologist and geothermal specialist. Shallow gradient holes are being drilled under permit from the Department and thermistors being installed so that earth temperatures can be monitored over a period of months.

No other drilling permits were issued in July. Standard Oil Co. is maintaining interest in its eastern Oregon holdings and will likely drill as soon as environmental clearance is given. Mobil Oil Co. continued field studies in western Oregon in July. Texaco, Inc., reviewed leases on federal lands in July surrounding the 1971 wildcat east of Prineville. Approval of leases applied for near the Texaco block by AMOCO Production Co. is still pending after many months of delay.

OREGON - Offshore

No activity reported in July.

WASHINGTON - Onshore

Standard Oil Co.	7000'	Drilling ahead.
Schroeder #1		
Sec. 26, T. 2 N., R. 4 E.		
Snohomish County		

Standard Oil Co.		Location staked.
Whidley Island #1		
Sec. 27, T. 29 N., R. 3 E.		
Island County		

Seacoast Oil & Gas, Inc.		Location staked.
Marysville #1		
Sec. 23, T. 30 N., R. 5 E.		
Clallam County		

OIL ACTIVITY IN THE NORTHWEST

OREGON - Offshore

No activity. No interest has developed since the moratorium on drilling set on OCS lands following the Santa Barbara incident.

OREGON - Onshore

Standard of California
Blue Mountain Unit - Federal 1
State Permit No. 62
API No. 36-045-00022
SW $\frac{1}{4}$ sec. 34, T. 37 S., R. 41 E.
Malheur County

Department issued a drilling permit 9-7-72 for a 9000-foot test drilling. Mr. L. B. Day, State Dept. of Environmental Quality has stated that he will not issue a waste disposal permit until the USBIM has issued a full impact statement. This would require public hearings.

Problems are developing over the issuance of leases by the Division of State Lands and the U.S. Bureau of Land Management to oil companies for drilling in Oregon. The leases give the companies the right to drill and develop. Now other agencies, DEQ and EPA, will not allow drilling. The companies must still pay annual lease rentals even though they cannot explore the leases. Status of federal leases in Oregon on September 1, 1972, was:

<u>Company</u>	<u>Acreage</u>	<u>County</u>	<u>Status</u>
AMOCO Production Co.	71,000	Crook	Pending approval
Mobil Oil Co.	99,700	Lane and Douglas	Pending approval
Marvin and Melvin Wolf	146,265	Malheur	Pending approval
Texaco	175,179	Crook	In effect
Standard Oil Co.	182,500	Crook, Harney, and Malheur	In effect
Total Acres	<u>674,644</u>		

Exploration drilling for geothermal resources continued in August. The work is being done by the Department of Geology and Mineral Industries under the supervision of Richard Bowen, Economic Geologist. A total of 20 shallow gradient holes have been drilled in Malheur County thus far. Approximately two more weeks of work will be done in Malheur County, then the crew will move to Baker County. Besides the shallow holes, temperature measurements have been taken in approximately 20 deep holes which were drilled in past mineral exploration work. Core samples of the holes are being studied to determine thermal conductivity or rock units.

WASHINGTON - Offshore

No activity in August.

WASHINGTON - Onshore

Standard of California
Schroeder #1
Sec. 26, T. 2 N., R. 4 E.
Snohomish County

9700' T.D.

Abandoned 8-16-72. Drill-stem
tests were reportedly run prior
to plugging.

Standard of California
Whidbey Island #1
Sec. 27, T. 29 N., R. 3 E.
Island County

3000'

Drilling ahead. Spud 8-28-72.
Estimated total depth 8000'
Using Loffland Bros. arctic rig
(same one Texaco used in Crook
County, Oregon).

OIL ACTIVITY IN THE NORTHWEST

OREGON - Offshore

Texaco, inc., renewed its OCS offshore geophysical permit for another six months. The permit is now extended to March 1973.

OREGON - Onshore

Standard of California
Blue Mt. Unit - Federal 1
State Permit 62
API No. 36-045-00022
SW $\frac{1}{4}$ sec. 34, T. 37 S., R. 41 E.
Malheur County

Permit issued Sept. 7, 1972. Standard applied to DEQ Oct. 12, 1972 for a waste disposal permit and a solid waste management permit. A hearing on these permits is scheduled for Nov. 30, 1972 at the Public Service Bldg. in Portland. Depending upon comments received, the DEQ will issue conditional permits similar to those given to Texaco for its Crook County drilling in 1971 with the understanding that the Bureau of Land Management will proceed with a 102 programmatic environmental impact statement for the drilling. In the meantime the USBLM has agreed to initiate a state-wide 102 impact statement for drilling in Oregon as well as making an environmental analysis of the Standard Blue Mt. site. The EIS for the state is scheduled to be completed by January 1, 1973. DEQ and the BLM further agreed that if a discovery is made further work will be halted until a 102 statement has been made for each specific site.

Industry is watching closely the Oregon discussion as forthcoming discussions can have national significance.

Texaco applied for another 30,000 acres of federal oil and gas leases located in the southwest corner of its Crook County lease block. No decision will be made on the application until the USBLM has completed its state-wide impact analysis. This should be released sometime this winter. There are now approximately 276,000 acres of oil and gas leases pending action by the BLM (\$133,000 in annual rentals). AMOCO Production Co. reportedly withdrew its application for 18,840 acres of federal leases in Crook County which have been pending approval since October 1971.

WASHINGTON - Offshore - No activity reported.

WASHINGTON - Onshore

Standard of California
Whidbey Island #1
Sec. 27, T. 29 N., R. 3 E.
Island County

6393' T.D.

Abandoned Sept. 21, 1972. No shows reported. The Loffland Bros arctic rig was released and is now drilling for Shell Oil Co. in Utah. This was probably the heaviest drilling equipment ever used in the Northwest.

GEOHERMAL AND OIL ACTIVITY IN THE NORTHWEST

OREGON -- Offshore

No activity.

OREGON -- Onshore

Standard Oil of Calif.
Blue Mountain Federal Unit 1
State Permit 62
API No. 36-045-00022
SW $\frac{1}{4}$ sec. 34, T. 37 S., R. 41 E.
Malheur County

Standard is ready to move in equipment to drill its Parma, Idaho test hole. When this wildcat (12,000' depth) is finished it will move to the Blue Mountain Unit.

Magma Energy, Inc.
Butler 1
State Permit 1
SE $\frac{1}{4}$ sec. 28, T. 18 S., R. 45 E.
Malheur County

Magma Energy has to clear its waste disposal permit with the State Department of Environmental Quality. Drilling is expected this spring.

Coastal States Gas Corporation announced in late January that it had made a cooperative agreement with Burlington-Northern Railroad to explore 7 million acres of railroad lands in North Dakota, Montana, Wyoming, Idaho, Oregon and Washington. This is the largest single exploration venture ever undertaken in the United States. BN lands include mineral rights on 300,000 acres in Oregon and more than 1 million acres in Washington.

WASHINGTON

Ozark Development Co. 2000'
Ozark State 1
SW $\frac{1}{4}$ sec. 14, T. 14 N., R. 3 W.
Lewis County

Operations suspended after formation tests. Wm. Craig contractor.

Concept Resources of 500'
Calgary, Canada
Near Orting, Washington
Pierce County

Drilling glacial till. Area is underlain by Eocene volcanics and near shore marine sediments containing some coal beds. Projected depth of 2000', gas test. Cable tool rig. Concept Resources is reportedly planning a 3-well program.

Sea Coast Oil Co. 100'
Approx. 2 miles south of
the Concept well
Pierce County

Shallow wildcat. Drilling in glacial till. McDonald Drilling Co. of Cut Bank, Montana is contractor.

IDAHO

Standard Oil of Calif.
Sec. 24, T. 6 N., R. 5 W.
Payette County

Will be moving in equipment
in the next week or two.
Location is west of the town
of Parma, near the Oregon
border. Projected depth is
12,000', pre-Tertiary object-
ive?

CALIFORNIA

Magma Energy, Inc.
Phipps 2
Sec. 23, T. 44 N., R. 15 E.
Modoc County

4500'

Suspended. Reported to have
hit water hot enough to use in
the company's Magmamax isobutane
heat exchange process. The
hole is in the Goose Lake area
just south of the Oregon border.

GEOHERMAL AND OIL ACTIVITY IN THE NORTHWEST

OREGON

Standard Oil of California
Blue Mountain Federal Unit 1
State Permit 62
API No. 36-045-00022
SW $\frac{1}{4}$ sec. 34, T. 37 S., R. 41 E.
Malheur County

Standard will drill this wildcat
after it finishes the hole at
Parma, Idaho.

Magma Energy, Inc.
Butler 1
State Permit 1
SE $\frac{1}{4}$ sec. 28, T. 18 S., R. 45 E.
Malheur County

The Dept. of Environmental Quality
and the Dept. of Geology and Min-
eral Industries are working on a
cooperative agreement to include
waste permits in the drilling per-
mit. Magma is expected to begin
drilling after amendments to the
Oregon Geothermal Act are approved
designating the Dept. of Geology
as the sole licensing agency.

WASHINGTON

Ozark Development Company
Ozark State 1
SW $\frac{1}{4}$ sec. 14, T. 14 N., R. 3 W.
Lewis County

2000'

Suspended. Wm. Craig, drilling
contractor.

Concept Resources,
Calgary, Alberta
Orting, Washington
Pierce County

500'+

Drilling glacial till. Projected
depth 2000'.

Sea Coast Oil Company
2 mi. south of
Concept's well

100'+

Drilling glacial till. Will drop
from report until significant
results from drilling are likely.

IDAHO

Standard Oil of California
Sec. 24, T. 6 N., R. 5 W.
Payette County

Moving in Montgomery Drilling Co.
equipment. Rig is being moved
from the Sacramento area in Calif.
Projected depth of this wildcat
is 12,000'.

CALIFORNIA

Magma Energy, Inc.
Phipps 2
Sec. 23, T. 44 N., R. 15 E.

4500'

Will resume testing when weather
permits. This drilling is south
of the Oregon border near Goose Lake.

OIL ACTIVITY IN THE NORTHWEST

OREGON

Standard Oil of California
Blue Mt. Federal Unit 1
State Permit 62
API 36-045-00022

Location. Projected depth 10,000'.

WASHINGTON

Concept Resources, Inc.
Orting 2
API 46-053-00012
SE $\frac{1}{4}$ sec. 31, T. 19 N., R. 5 E.
Pierce County

500'+

Drilling glacial till.

Ozark Development Co.
Ozark State 1
SW $\frac{1}{4}$ sec. 14, T. 14 N., R. 3 W.
Lewis County

2000'+

Suspended. Will drop from report
until work is resumed.

IDAHO

Standard Oil of California
Highland Livestock & Land Co. 1
Sec. 24, T. 6 N., R. 5 W.
Payette County

5000'+

Drilling. Projected depth 12,000'.
Hoover Drilling Co, Contractor.

GEOHERMAL ACTIVITY IN THE NORTHWEST

OREGON

Gulf Oil Company
Meadow Lake, Inc. 1-ST
NE $\frac{1}{4}$ sec. 19, T. 38 S., R. 10 E.
Klamath County

Location. Projected depth 6000'.

Gulf Oil Co.
Farell-Utley 1-ST
NE $\frac{1}{4}$ sec. 5, T. 39 S., R. 20 E.
Lake County

Location. Projected depth 6000'.

CALIFORNIA

Magma Energy, Inc.
Phipps 2
Sec. 23, T. 44 N., R. 15 E.
Modoc County

4500'

Work will resume when weather
improves.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON

Standard of California
Blue Mt. Federal Unit 1
State Permit 62
API 36-045-00022
Malheur County

Location being prepared. Will
move in late in May. Environ-
mental clearance given by DEQ.

WASHINGTON

Concept Resources
Orting 2
API 46-053-00012
SE $\frac{1}{4}$ sec. 31, T. 19 N., R. 5 E.
Pierce County

600'

Drilling ahead.

Eastern Petroleum Company
South Minter 1
Sec. 21, T. 27 N., R. 13 W.
Jefferson County

Preparing location. Will spud
the middle of May. Projected
depth of 7000 feet.

IDAHO

Standard of California
Highland Livestock & Land Co. 1
Sec. 24, T. 6 N., R. 5 W.
Payette County

11,000'

Plan to bottom at 12,500 feet.
Deepest hole in the region.
Hoover Drilling Co. - contractor.

Griffith & Associates
Payette area

5,600'

Drilling. No shows reported.
Major companies participating.

GEOHERMAL ACTIVITY IN THE NORTHWEST

OREGON

Gulf Oil Co.
Meadow Lake, Inc. 1-ST
NE $\frac{1}{4}$ sec. 19, T. 38 S., R. 10 E.
Klamath County

Clearance given by DEQ under
Department of Geology permit.

Gulf Oil Co.
Farell-Utley 1-ST
NE $\frac{1}{4}$ sec. 5, T. 39 S., R. 20 E.
Lake County

Clearance given by DEQ under
Department of Geology permit.

Magma Energy, Inc.
Butler 1
SE $\frac{1}{4}$ sec. 28, T. 18 S., R. 45 E.
Malheur County

Clearance given by DEQ under
Department of Geology permit.
Location approximately 3 miles
east of the town of Vale.

CALIFORNIA

Magma Energy, Inc.
Phipps 2
Sec. 23, T. 44 N., R. 15 E.
Modoc County

4,500'

Still idle. Projected depth
6,000 feet. Hit hot water.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON

Standard oil Co.
Blue Mt. Federal Unit 1
State Permit 62
API 36-045-00022
Malheur County

Location ready. Waiting on Idaho well.

WASHINGTON

Concept Resources
Orting 2
API 46-053-00012
Sec. 31, T. 19 N., R. 5 E.
Pierce County

700'

Set 400 feet of surface casing.

Eastern Petroleum Co.
Soleduck 1
API 46-009-00048
Sec. 14, T. 28 N., R. 14 W.
Clallam County

100'

Drilling in glacial till, progress slow. Projected depth is 3000 feet.

Eastern Petroleum Co.
South Minter 1
API 46-031-00025
Sec. 21, T. 27 N., R. 13 N.
Jefferson County

Location made. Projected depth 7000 feet.

The Washington Lands Division is offering 15,000 acres of state lands for oil and gas leasing on June 26, 1973, Olympia, Washington. The leases are located in the northwestern part of the state and will be issued to the highest bidder at an oral auction.

IDAHO

Standard Oil Co.
Highland Livestock & Land Co. 1
Sec. 24, T. 6 N., R. 5 W.
Payette County

12,000'

Drilling. Having hole problems. Projected total depth 12,500-13,000 feet. Hoover Drilling Co., Bakersfield - contractor.

Griffith & Associates
Payette area

6,000'

Drilling ?

GEOHERMAL ACTIVITY IN THE NORTHWEST

OREGON

Gulf Oil Co.
Meadow Lake, Inc., 1-ST
NE $\frac{1}{4}$ sec. 19, T. 38 S., R. 10 E.
Klamath County

Processing of permit essentially completed. Spud date moved ahead to August.

Gulf Oil Co.
Favell-Utley 1-ST
NE $\frac{1}{4}$ sec. 5, T. 39 S., R. 20 E.
Lake County

Processing of permit essentially completed. Spud date set ahead to September.

Magma Energy, Inc.
Butler 1
SE $\frac{1}{4}$ sec. 28, T. 18 S., R. 45 E.
Malheur County

Processing of permit essentially completed. Company will probably move in after completing drilling on its northern California well.

NORTHERN CALIFORNIA

Magma Energy, Inc.
Phipps 2
Sec. 23, T. 44 N., R. 15 E.
Modoc County

4,500'

No report.

Gulf Oil Co.
Honey Lake 1-ST
Surprise Valley
Sec. 30, T. 44 N., R. 16 E.
Modoc County

Location made. Will probably spud in June.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON

Standard Oil of California
Blue Mt. Federal Unit #1
State Permit 62
API 36-045-00022
Sec. 24, T. 6 N., R. 5 W.
Malheur County

1900'

Drilling. Will set 2000'+ of
10-3/4" surface casing. Pro-
jected depth 10,000'+. Mont-
gomery Drilling Company,
Bakersfield, is the contractor.

WASHINGTON

Concept Resources
Orting #2
API 46-053-00012
SE $\frac{1}{4}$ sec. 31, T. 19 N., R. 5 E.
Pierce County

600'

Inactive last month.

Eastern Petroleum Company
South Minter #1
API 46-031-00025
Sec. 21, T. 27 N., R. 13 W.
Jefferson County

Location ready.

Eastern Petroleum Company
Soleduck #1
API 46-031-00048
SW $\frac{1}{4}$ sec. 14, T. 28 N., R. 14 W.
Jefferson County

1000'

Drilling. Projected depth
3000'+.

IDAHO

Standard Oil of California
Highland Livestock
and Land Company #1
Sec. 24, T. 6 N., R. 5 W.
Payette County

11,960' T.D.

Redrilled 10,000'-11,935'.
Abandoned June 11, 1973.

Griffith & Associates
Hamplett area

Incorrectly reported to be near
Payette. First hole drilled to
4200'. Lost tools in the hole.
Moved over and redrilled. Will
drop from report.

GEOHERMAL ACTIVITY IN THE NORTHWEST

OREGON

Gulf Oil Company
Meadow Lake, Inc., 1-ST
API 36-035-90001
NE $\frac{1}{4}$ sec. 19, T. 38 S., R. 10 E.
Klamath County

Will spud in late summer.
Projected depth 6000'.

Gulf Oil Company
Favell-Utley 1-ST
API 36-037-90001
NE $\frac{1}{4}$ sec. 5, T. 39 S., R. 20 E.
Lake County

Will spud in late summer or
fall. Projected depth 6000'.

Magma Energy, Inc.
Butler 1
API 36-045-90001
SE $\frac{1}{4}$ sec. 28, T. 18 S., R. 45 E.
Malheur County

Expected to drill this summer.

NORTHERN CALIFORNIA

Magma Energy, Inc.
Phipps 2
Sec. 23, T. 44 N., R. 15 E.
Modoc County

4500'

Inactive. Will drop from
report.

Gulf Oil Company
Surprise Valley 1-ST
Sec. 30, T. 44 N., R. 16 E.
Modoc County

Location made.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON

Standard Oil Co. of California
Blue Mt. Federal Unit #1
State Permit #62
API 36-045-00022
Sec. 34, T. 6 N., R. 5 W.
Malheur County

9000'

Drilling ahead. Preparing to
abandon.

Melvin and Marvin Wolfe, Denver, Colorado, withdrew applications on 146,925 acres of Federal oil and gas leases in eastern Malheur County in July. The withdrawal followed closely after abandonment of the Standard Oil Company wildcat near Nampa, Idaho, just across the border from the leases.

WASHINGTON

Eastern Petroleum Co.
South Minter #1
API 46-031-00025
Sec. 21, T. 27 N., R. 13 W.
Jefferson County

Location made.

Eastern Petroleum Co.
Soleduck #1
API 46-031-00048
SW $\frac{1}{4}$ sec. 14, T. 28 N., R. 14 W.
Jefferson County

1800'

Preparing to abandon.

GEOTHERMAL ACTIVITY IN THE NORTHWEST

OREGON

Gulf Oil Co.
Meadow Lake, Inc., 1-ST
NE $\frac{1}{4}$ sec. 19, T. 38 S., R. 10 E.
API 36-035-90001
Klamath County

Location. To follow Gulf northern California wells.

Gulf Oil Co.
Favell-Utley 1-ST
API 36-037-90001
NE $\frac{1}{4}$ sec. 5, T. 39 S., R. 20 E.
Lake County

Location. To follow Gulf northern California wells.

Magma Energy, Inc..
Butler #1
API 36-045-90001
SE $\frac{1}{4}$ sec. 23, T. 18 S., R. 45 E.
Malheur County

Location. Project waiting on USBIM clearance of geothermal exploration.

NORTHERN CALIFORNIA

Magma Energy, Inc.
Phipps #2
Sec. 23, T. 44 N., R. 15 E.
Modoc County

4500'

Preparing to continue tests.

Gulf Oil Co.
Surprise Valley #1-ST
Sec. 30, T. 44 N., R. 16 E.
Modoc County

Location. Will be drilled after the Honey Lake well.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON

Standard Oil Co. of Calif.
Blue Mountain Federal Unit #1
State Permit 62
API #36-045-00022
Sec. 34, T. 6 N., R. 5 W.
Malheur County

8414' T.D.

Abandoned 8-6-73. Department will monitor hole temperature for several months before placing the top cement plug.

WASHINGTON

Eastern Petroleum Co.
South Minter #1
API #46-031-00025
SW $\frac{1}{4}$ sec. 14, T. 28 N., R. 14 W.
Jefferson County

Location prepared.

Eastern Petroleum Co.
Sniffer Forks #1
NE $\frac{1}{4}$ sec. 16, T. 28 N., R. 13 W.
Clallam County

2000'

Fishing - stuck pipe.

GEOHERMAL ACTIVITY IN THE NORTHWEST

OREGON

Gulf Oil Co.
Meadow Lake, Inc., 1-ST
NE $\frac{1}{4}$ sec. 19, T. 38 S., R. 10 E.
API 36-035-90001
Klamath County

Location. To follow Gulf
northern California wells.

Gulf Oil Co.
Favell-Utley 1-ST
API 36-037-90001
NE $\frac{1}{4}$ sec. 5, T. 39 S., R. 20 E.
Lake County

Location. To follow Gulf
northern California wells.

Magma Energy, Inc.
Butler #1
API 36-045-900001
SE $\frac{1}{4}$ sec. 23, T. 18 S., R. 45 E.
Malheur County

Location. Project waiting
on USBIM clearance of geo-
thermal exploration.

NORTHERN CALIFORNIA

Magma Energy, Inc.
Phipps #2
Sec. 23, T. 44 N., R. 15 E.
Modoc County

4500'

Reported to be a geothermal
discovery.

Gulf Oil Co.
Surprise Valley #1-ST
Sec. 30, T. 44 N., R. 16 E.
Modoc County

4000±

No information available
on results of drilling and
testing.

Gulf Oil Co.
Surprise Valley #2-ST
Sec. 13, T. 43 N., R. 16 E.
Modoc County

1000'

Drilling. Company plans to
move to Oregon following
completion of this hole.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON

No exploration activity in November. The Department is attempting to open the Federal lands in Oregon to leasing again. The U.S. Bureau of Land Management is asking for a policy statement from the Governor's office before it agrees to open lands in Oregon. The environmental freeze on Federal onshore oil and gas leases applies only to Oregon (and also certain regions in Alaska).

WASHINGTON

Eastern Petroleum Co.
Sniffer Forks #1
NE $\frac{1}{4}$ sec. 16, T. 28 N., R. 13 W.
Clallam County

2000' $\pm$

Lost tools in hole, plugged back to 1300' and sidetracked fish.

GEOHERMAL ACTIVITY

OREGON

Gulf Oil Co.
Favell-Utley 1-ST
API 36-037-90001
NE $\frac{1}{4}$ sec. 17, T. 39 S., R. 20 E.
Lake County

1000' $\pm$

Drilling. Corrected location: NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 17, T. 39 S., R. 20 E. Gulf spudded in on October 25, 1973. Big Chief Drilling Co., Oklahoma City is contractor. Objective depth is 6000'.

Gulf Oil Co.
Meadow Lake Inc. 1-ST
API 36-035-90001
NE $\frac{1}{4}$ sec. 19, T. 38 S., R. 10 E.
Klamath County

This deep test hole is scheduled to follow the Lake County hole.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON

No drilling activity this month. The Texaco Crook County records were released in November and news media reported the noncommercial gas shows encountered in Cretaceous sandstone. Texaco has maintained its lease block and has reportedly been acquiring new leases this past summer.

There is still a moratorium on oil and gas leasing on Federal lands in Oregon. The ban has been in effect since October 1971 when the State Department of Environmental Quality requested impact proceedings be initiated before any more leases were issued. A total of 498,000 acres of leases have been tied up for 2 years and the matter is still to be resolved. The ban on leases affects only lands in Oregon. Leasing and drilling on Federal lands are going ahead at a rapid pace in other states.

WASHINGTON

Eastern Petroleum Co.
Sniffer Forks #1
NE $\frac{1}{4}$ sec. 16, T. 28 N., R. 13 W.
Clallam County

2300'+ T.D.

Abandoned 10-23-73.

Development Associates, Inc.
(Washington Water Power Co.)
M. A. Baker #1
NW $\frac{1}{4}$ sec. 30, T. 20 N., R. 11 W.
Grays Harbor County

3000'

Drilling ahead.

GEOTHERMAL ACTIVITY IN THE NORTHWEST

OREGON

Gulf Oil Co.
Meadow Lake #1-ST
API 36-035-90001
NE $\frac{1}{4}$ sec. 19, T. 38 S., R. 10 E.
Klamath County

Gulf has postponed drilling this well until next spring because of weather and because they decided to move in a bigger rig. Depth capacity of the Big Chief equipment was 6000'.

Gulf Oil Co.
Favell-Utley #1-ST
API 36-037-90001
NE $\frac{1}{4}$ sec. 5, T. 39 S., R. 20 E.
Lake County

5440' T.D.

Plugged and abandoned 11-15-73. Big Chief rig released.

Magma Energy, Inc.
Butler #1
API 36-045-90001
SE $\frac{1}{4}$ sec. 23, T. 18 S., R. 45 E.
Malheur County

Magma will not drill this prospect until Federal lands are opened to leasing.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON

No drilling activity this month. Officials from this Department, Division of State Lands, Department of Environmental Quality, and the U.S. Bureau of Land Management met December 10, 1973, to resolve the difficulties between State and Federal agencies related to leasing Federal lands for oil and gas minerals. Secretary Rogers Morton issued a moratorium on leasing in Oregon until the question of impact statements was resolved. Leasing activity under this order has been frozen since November 1971. The group decided that the problem could be resolved by Governor McCall. It was suggested that he write Secretary Morton stating that Oregon would accept the USBLM procedure, or, if he still believes impact statements are mandatory for drilling, that he should write and urge Secretary Morton to expedite the national and state impact statements.

Northwest Natural Gas Co. has laid plans to import liquefied natural gas into a terminal located at the coastal town of Newport. Facilities would include storage for 300,000 barrels of liquefied gas from southwestern Alaska. The project will involve transportation of gas in a specially built tanker with estimated capacity of 180,000 barrels from Kenai, Alaska to Newport. Shipping will reportedly be done by Global Marine Development, Inc., Los Angeles.

WASHINGTON

Development Associates, Inc.
(Washington Water Power Co.)
M. A. Baker #1
NW $\frac{1}{4}$ sec. 30, T. 20 N., R. 11 W.
Grays Harbor County

4000' T.D.

Encountered gas shows in lower portion of hole but noncommercial. Abandoned in late November.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

No activity in February. Texaco, Mobil, and Standard are expected to continue field studies in Oregon in 1974 with the possibility of one deep hole being drilled this summer.

The Federal leasing moratorium is still in effect in Oregon after nearly 2 $\frac{1}{2}$ years of bureaucratic delays. Governor McCall and the Secretary of the Interior have agreed to resolve the matter as is done in other states by making an environmental analysis on a well-by-well basis. The Oregon office of the BLM reportedly has only four field men to make analyses of proposed drilling locations for oil and gas and for geothermal. With nearly one million acres of new geothermal lease applications on file and prior outstanding applications on 300,000 acres of oil and gas leases, the reviews will apparently take several years.

OREGON - Offshore

William E. Grant, manager of the Pacific Coast OCS office for the Bureau of Land Management, met with State and Federal natural resource agency representatives in Portland last month. Purpose of the meeting was to discuss future offshore mineral exploration in Oregon and Washington. The Interior Department has asked for comments to be submitted by May 1974.

WASHINGTON - Onshore

Development Associates
(Washington Water Power Co.)
Carlisle #1-23
Sec. 23, T. 20 N., R. 12 W.
Grays Harbor County

Location being readied. Fred Wurden,
Billings, Montana. Taylor Drilling
Company to be contractor.

GEOTHERMAL ACTIVITY

OREGON

Nearly one million acres of Federal geothermal leases were filed on in February for the first geothermal offering. Sun Oil Company, California Geothermal, Inc., and Chevron Oil Company applied for the most land of the 61 applicants who filed. Magma Power Company, Gulf Oil Company, Earth Power Company, Hunt family of Texas, and City of Burbank, California, were among the others seeking geothermal rights.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Standard Oil Co. of Calif.
Blue Mountain Federal Unit #1
State Permit #62
API #36-045-00022
Sec. 34, T. 6 N., R. 5 W.
Malheur County

8414' T.D.

The final abandonment plug
awaiting completion of tem-
perature surveys by the USGS.

Governor McCall received a reply from the office of the Secretary of the Interior in February regarding the Oregon lease moratorium. The reply stated that Oregon would have to agree with the procedure used in other states or wait until the national and state impact statements can be prepared. The Governor's reply, late in March, stated he would still insist on impact statements.

The delay in issuing leases has continued for $2\frac{1}{2}$ years and will undoubtedly continue for many more months. Loss of rentals on pending leases totals \$250,000, and 100,000 acres of lease applications have been withdrawn since the start of the moratorium without any rental being paid.

OREGON - Offshore

No activity. Oregon and Washington are being considered by the USBLM in future OCS lease sales.

WASHINGTON - Onshore

Development Associates
(Washington Water Power Co.)
Carlisle #1-23
Sec. 23, T. 20 N., R. 12 W.
Grays Harbor County

The location is ready. Drilling
will start this month. Fred
Wurden, Casper, Wyoming, geolo-
gist. Shallow gas prospect.

GEOHERMAL ACTIVITY

OREGON

Gulf Oil Co.
Meadow Lake #1-ST
API #36-035-90001
NE $\frac{1}{4}$ sec. 19, T. 38 S., R. 10 E.
Klamath County

Will begin preparing location and move in by the first week of May.

Magma Energy, Inc.
Butler #1
API #36-045-90001
SE $\frac{1}{4}$ sec. 23, T. 18 S., R. 45 E.
Malheur County

Application has not been completed, however Magma is expected to drill the Vale test this summer.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Standard Oil Co. of Calif.
Blue Mt. Federal Unit #1
State Permit #62
API #36-045-00022
Sec. 34, T. 6 N., R. 5 W.
Malheur County

8414' T.D.

Drilling completed 8-6-73.
USGS continuing to monitor geo-
thermal gradients. The USGS
will accept abandonment respons-
ibility from the Department.

All Federal oil and gas leases in Oregon are under a U.S. Department of Interior moratorium pending preparation of an environmental impact statement. The moratorium was imposed in November 1971.

OREGON - Offshore

Digicon, Inc., Houston, Texas, was issued an offshore exploration permit by the Oregon Lands Division in April. The firm plans to make air gun surveys along the Oregon and Washington coasts. Digicon also obtained a permit from the U.S. Geological Survey to operate in Federal waters.

WASHINGTON - Onshore

Development Associates
(Washington Water Power Co.)
Carlisle #1-23
Sec. 23, T. 20 N., R. 12 W.
Grays Harbor County

4000'

The company is reportedly testing gas sands which were encountered nearby in wells drilled by Shell Oil Co. in 1970. Shallow sands indicated a 1000 MCF flow during Shell's testing.

El Paso Products Co.
Grays Harbor County #35-1
Sec. 35, T. 19 N., R. 12 W.
Grays Harbor County

Location ready. Rig used on Development Associates wildcat will move to this site.

WASHINGTON - Offshore

See Oregon report above.

GEO THERMAL ACTIVITY

Gulf Oil Co.
Meadow Lake #1-ST
API #36-035-90001
NE $\frac{1}{4}$ sec. 19, T. 38 S., R. 10 E.
Klamath County

Location ready. Gulf is having trouble lining up drilling equipment. The well was to start in May but the date may be moved ahead several weeks.

Magma Energy, Inc.
Butler #1
API #36-045-90001
SE $\frac{1}{4}$ sec. 23, T. 18 S., R. 45 E.
Malheur County

The company is expected to drill this summer.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

No new applications last month. One major company will have a field party working in western Oregon this summer. Private lands are being added to lease blocks in eastern Oregon but the moratorium on Federal oil and gas leases has essentially stopped exploration in that portion of the state.

OREGON - Offshore

No activity in May off the Oregon coast.

WASHINGTON - Onshore

Development Associates
(Washington Water Power Co.)
Carlisle #1-23
Sec. 23, T. 20 N., R. 12 W.
Grays Harbor County

4000'

Reviewing test data on shallow gas sands. Well may prove to be commercial. Estimated 1000 MCF/D on test.

El Paso Products Co.
Grays Harbor County #35-1
Sec. 35, T. 19 N., R. 12 W.
Grays Harbor County

3500'±

Reportedly planning production tests.

GEOHERMAL ACTIVITY

Gulf Oil Co.
Meadow Lake #1-ST
API #36-035-90001
NE $\frac{1}{4}$ sec. 19, T. 38 S., R. 10 #. ,
Klamath County

Location ready but Gulf has postponed its move-in until the controversy over water permits from the State Engineer is settled. The State Engineer is asking Gulf's contractor to employ a water well driller licensed by his agency.

Magma Energy, Inc.
Butler #1
API #36-045-90001
SE $\frac{1}{4}$ sec. 23, T. 18 S., R. 45 E.
Malheur County

Permit is pending submission of \$5000 bond and environmental assessment.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

No new applications were received last month for oil and gas drilling.

Far West Oil of Portland has been putting a lease block together in Yamhill County. The firm is believed to be speculating on increased exploration interest in Oregon. Tri-Tex Corporation of Sidney, Nebraska has reportedly assembled several thousand acres of leases northeast of Burns, and Texaco has been filling in its lease block in Crook County with private lands.

Mobil, Standard, and Texaco have been actively engaged in exploration in Oregon during the last three years.

OREGON - Offshore

Texaco and Standard are maintaining exploration licenses off the Oregon coast apparently anticipating a renewal of activity in that region.

Comments by USBIM members on future offshore Federal lease sales indicate that Oregon and Washington are at the bottom of the list; southern California and western Alaska are near the top.

WASHINGTON - Onshore

Development Associates
(Washington Water Power Co.)
Carlisle #1-23
Sec. 23, T. 20 N., R. 12 W.
Grays Harbor County

4000'±

Idle. Will drop from report.

El Paso Products Co.
Grays Harbor County #35-1
Sec. 35, T. 19 N., R. 12 W.
Grays Harbor County

3500'±

Idle. The company is reported to be planning 3 or 4 more shallow exploratory holes in Grays Harbor County.

GEOHERMAL ACTIVITY

Gulf Oil Co.
Meadow Lake #1-ST
API #36-035-90001
NE $\frac{1}{4}$ sec. 19, T. 38 S., R. 10 E.
Klamath County

Location made. Drilling postponed.

Magma Energy, Inc.
Butler #1
API #36-045-90001
SE $\frac{1}{4}$ sec. 23, T. 18 S., R. 45 E.
Malheur County

Permit pending filing of a \$5000 bond.

Magma Energy, Inc.
La Grande #1
API #36-061-90001
NE $\frac{1}{4}$ sec. 9, T. 4 S., R. 39 E.
Union County

Application filed on July 8, 1974.

Magma Energy, Inc.
La Grande #2
API #36-061-90002
NE $\frac{1}{4}$ sec. 9, T. 4 S., R. 39 E.
Union County

Application filed on July 8, 1974.

Magma Energy, Inc.
Vale #1
API #36-045-90001
NW $\frac{1}{4}$ sec. 28, T. 18 S., R. 45 E.
Malheur County

Application filed on July 8, 1974.

Magma Energy, Inc.
Vale #2
API #36-045-90002
NW $\frac{1}{4}$ sec. 28, T. 18 S., R. 45 E.
Union County

Application filed on July 8, 1974.

Gulf Research and Development Co.
Geophysical Program

Gulf Research has filed notice to drill approximately 40 shallow geophysical holes.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Mobil Oil Company filed applications with the USBLM for 79 leases in Oregon. Mobil's applications covered nearly 200,000 acres in Coos, Linn, Lane, and Douglas Counties. No leases have been granted in Oregon since October 1971 when a moratorium was declared on Federal lands in the state pending an environmental report. There are currently 300,000 acres of pending lease applications and 221,000 acres under lease in Oregon affected by this moratorium.

OREGON - Offshore

No activity.

WASHINGTON - Onshore

El Paso Products Co.
Forks Area
Clallam County

Will begin early in September.
Signal Oilfield Services of
Denver is the contractor.

El Paso Products Co.
Montesano Area
Grays Harbor County

This hole is to be drilled after
the Forks well. El Paso report-
edly has a program for several
wells in western Washington.

Shell Oil Co. applied for 47 Federal leases in Grant, Benton, Yakima, and Kittitas Counties of eastern Washington in August. These are the first applications for Federal leases in eastern Washington in many years.

WASHINGTON - Offshore

No activity.

IDAHO

Wildcat
Payette area
Payette County

Being drilled by an independent.
Will obtain information for
next month's report.

GEOHERMAL ACTIVITY

OREGON

Magma Energy, Inc.
La Grande No. 1
NW $\frac{1}{4}$ sec. 9, T. 4 S., R. 39 E.
Union County

1000'±

Set 13-3/8" 54# surface casing at 712'. Cemented casing to surface with 1038 sacks of construction cement. Department witnessed BOP equipment tests - O.K. Projected depth 5000'.

Gulf Research & Development, Inc.
Lake County

Began drilling temperature gradient holes and conducting seismic studies.

The USBLM has received 773 geothermal lease applications covering 1.6 million acres in Oregon since January 1, 1974. More than 200 applications were rejected because of a 50% overlap. Therefore, they must go to competitive bidding. Late in August the Bureau issued Oregon's first Federal geothermal lease to Republic Geothermal, Inc., of California. The lease was for 1347 acres near the town of Vale.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Mobil Oil Co. has had a field crew working in southwestern Oregon this summer and the company applied for 200,000 acres of Federal leases last month.

OREGON - Offshore

No activity last month. Several inquiries were received, however, about the possibility of opening the area again.

WASHINGTON - Onshore

El Paso Products Co.
Montesano #1
NW $\frac{1}{4}$ sec. 13, T. 17 N., R. 18 W.
Grays Harbor County

The company had problems drilling through the cover of glacial till. The first attempt was abandoned and the rig skidded to another location. Signal Oil Field Services, Denver is contractor.

IDAHO

Anschutz Corp.
Well No. 1
Sec. 13, T. 5 S., R. 1 E.
Owyhee County

11,125' TD

Spud 6-8-74. Plugged and abandoned 8-30-74. No dope hole. Coordinates: 2006'N - 1942'E from the SW corner of sec. 13.

GEO THERMAL ACTIVITY

Magma Energy, Inc.
La Grande No. 1
NW $\frac{1}{4}$ sec. 9, T. 4 S., R. 39 E.
Union County

2,730' TD

Ran logs and hole caliper. Plugged and abandoned 9-24-74. Temperatures not high enough. Taylor Drilling Co., Chehalis, Washington is contractor. Magma is moving rig to location near Cedarville, Cal. After finishing this hole Magma plans to return to Vale, Oregon.

Gulf Research & Development
Temperature gradient holes

Gulf drilled approx. 40 temperature gradient holes and 2 or 3 lines of seismic holes in Warner Valley. W.W. Drilling & Service Co. of Eugene was contractor.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

The last oil and gas drilling permit was issued to Standard Oil Company of California in September 1972 for its Blue Mountain Federal Unit well in south-eastern Malheur County. The latest development has been the large-scale leasing by Mobil Oil Company in southwestern Oregon this past year. Mobil was reported to be acquiring leases in the southern Willamette Valley last month.

Texaco has maintained its leases in Crook County since abandoning a wildcat near Paulina in October 1971.

OREGON - Offshore

Gulf Oil Company applied to the Division of State Lands and the U.S. Geological Survey last month to run air gun surveys off the coast of Oregon. Texaco, Inc., and Standard of California have maintained offshore geophysical licenses in Oregon for several years.

WASHINGTON - Onshore

El Paso Products Co. Montesano #1 NW $\frac{1}{4}$ sec. 13, T. 17 N., R. 18 W. Grays Harbor County	300'	Twisted off in glacial gravels. Skidded rig over and began new hole.
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El Paso Products Co. Montesano #1-A	2200'	Drilling ahead. Signal Oil Field Services is contractor.
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Shell Oil Company initiated a large-scale leasing program in central Washington in Benton, Grant, and Kittitas Counties during September. The company has reportedly assembled 100,000 acres of leases. Texaco has joined the leasing by taking options on 25,000 acres. The activity appears to be in the central Columbia Basin. Objective of drilling must lie below the Miocene lavas at depths of 7000 to 8000 feet. Natural gas was produced from porous Miocene lavas at Rattlesnake Hills for several years preceding World War II.

GEOHERMAL ACTIVITY

Gulf Research & Development Pittsburgh, Pennsylvania	Completed drilling 40 300-foot temperature gradient holes in Lake County by September.
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Interest in leasing continued at a high level last month but no drilling was done during that period.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Mobil continued leasing in the Willamette Valley in December. Calls from land-owners indicated the leasing ranged from Springfield north to Salem. Mobil also negotiated for leases northeast of the town of Lebanon last fall.

Fay Renth, Janet Dorman, and David Forson of Denver, Colorado, filed on Washington and Columbia County leases dropped by Standard Oil Company last September. The lease block encompasses approximately 15,000 acres.

OREGON - Offshore

Gulf Oil applied to the Division of State Lands for a permit to conduct air gun seismic surveys along the Oregon coast.

WASHINGTON - Onshore

El Paso Products Co.	6920' T.D.	Plugged and abandoned.
Montesano #1-X		Bottomed in Eocene volcanics.
NW $\frac{1}{4}$ sec. 13, T. 17 N., R. 8 W.		
Grays Harbor County		

Shell Oil Company and Texaco, Inc., have taken leases in southeastern Washington in the Columbia Plateau. Objectives are pre-Miocene sedimentary rocks. Low pressure gas was produced from the shallow Rattlesnake Hills gas field between 1929 and 1942. The new leases are in the area of the Rattlesnake structure.

GEOHERMAL ACTIVITY IN THE NORTHWEST

The Bureau of Land Management announced its schedule for competitive leasing of geothermal KGRA's in Oregon for 1975-76. (See the list in Dec. 1974 Ore Bin.)

The Bureau of Land Management offered competitive leases on the Beowawe, Hot Springs Point, and Brady-Hazen KGRA in Nevada last month. The area being auctioned totals more than 30,000 acres. A lease sale was held in September 1974 covering lands in the Brady-Hazen KGRA. Successful bidders paid \$30,000 for 4250 acres (The International Geothermal Energy Newsletter).

Magma, Inc., finished testing its well in Surprise Valley in November. The company reportedly has moved to Idaho to drill a geothermal prospect. The company was expected to return to Vale, Oregon this winter to drill leases there.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Mobil continued to add to its leases last month in western Oregon. Mobil applied for 40,000 acres of state lands scattered from Roseburg north to Salem.

OREGON - Offshore

No activity last month. The U.S. Department of Interior announced its off-shore leasing schedule late in 1974. Oregon and Washington were included in Sale Area 57, which would be up for lease in October 1978. The offering would include all of the Washington coast and only the southwest portion of the Oregon coast, believed to be the least attractive of the Oregon shelf lands (The Oregonian, Nov. 16, 1974).

WASHINGTON - Onshore

El Paso Products Co.
Lacy No. 22-1
Sec. 22, T. 26 N.; R. 13 W.
Jefferson County

5700'

Drilling. Planned depth of 6000'.
Contractor, Signal Oil Field Services.

WASHINGTON - Offshore

No activity. See comment under Oregon - Offshore.

GEO THERMAL ACTIVITY IN OREGON

Geothermal Services, Inc.
Los Angeles firm
Gradient Hole Program
Alvord Valley

The Department issued a permit for shallow thermal gradient holes Feb. 10, 1975. Geothermal Services is contractor for Anadarko Oil Co.

AMAX Exploration, Inc.
Portland, Oregon office
Gradient Hole Program
Grande Ronde Valley

AMAX applied for a permit to drill shallow gradient holes in the La Grande area. The permit is expected to be issued in approximately two weeks.

Gulf Research, Inc., Pittsburgh, Pennsylvania is continuing to monitor shallow temperature gradient holes in Warner Valley in Lake County. Gulf drilled the holes last summer.

OIL ACTIVITY IN THE NORTHWEST

OREGON - Onshore

The Department has been joined by Reichhold Chemical Co. and Northwest Natural Gas Co. in making a study to locate gas storage structures in northwest Oregon and determine if there is potential for oil and gas production in the region.

OREGON - Offshore

Shell Oil Co. extended its OCS exploration permit for another 6 months but indicated that no specific project had been planned as yet.

The company which filed on 200,000 acres of federal lands in Washington and Columbia Counties in December 1974 has been identified as Gas Producing Enterprises, Texas.

WASHINGTON - Onshore

El Paso Products Co. Lacy #22-1 Sec. 22, T. 26 N., R. 13 W. Jefferson County	5722' T.D.	Plugged and abandoned. South of Hoh River on the coast. Miocene rocks but believed to be melange type structure.
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El Paso Products Co. Hoquiam-Wishram River area SW $\frac{1}{4}$ sec. 27, T. 19 N., R. 9 W. Grays Harbor County	4699' T.D.	Plugged and abandoned. Probably a test of the Miocene section.
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El Paso Products Co. Wishram-Winoochi area		Preparing to move south to test Miocene-Oligocene rocks.
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Shell Oil Co. continued to add to leases in Benton, Grant, Kittitas, and Yakima Counties in eastern Washington. The play is centered in the Columbia Plateau on a structure which produced gas 30 years ago (Oil and Gas Journal, Feb. 24, 1975).

WASHINGTON - Offshore

No activity.

GEOTHERMAL ACTIVITY IN OREGON

Geothermal Surveys, Inc. Los Angeles, California Alvord Valley	Department issued permit on Feb. 11, 1975.
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Amax Exploration, Inc. Portland, Oregon La Grande area	Department issued permit on Mar. 5, 1975
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Phillips Petroleum Co. Reno, Nevada Alvord Valley	Department requested Phillips to obtain a state permit even though operators were entirely on federal lands.
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Gulf Research & Development Pittsburgh, Pennsylvania Warner Valley	Department issued Gulf a permit on July 24, 1974. Gulf is still monitoring temperatures.
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OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Mobil Oil Co.
Denver, Colorado

Is continuing to build a major lease position in western Oregon.

Reichhold Chemical Co.
White Plains, New York

The firm recently announced its intention to launch an exploration program in western Oregon in 1975.

Coastal States Gas Co.
Denver, Colorado

The company applied for approximately 10,000 acres of Federal leases in Washington and Columbia Counties.

OREGON - Offshore

Shell Oil Co. applied to the U.S. Geological Survey to conduct air-gun seismic studies off the Oregon coast between the end of March and May 1975.

The U.S. Geological Survey gave notice that records for offshore wells drilled on OCS lands along the Pacific Coast were being opened to the public.

WASHINGTON - Onshore

No drilling activity at present. El Paso Products Co. may drill again in Grays Harbor County this summer.

WASHINGTON - Offshore

See under Oregon offshore.

GEOHERMAL ACTIVITY IN OREGON

Gulf Research & Development
Warner Valley, Lake County

Monitoring temperatures in shallow holes.

Geothermal Surveys, Inc.
Alvord Valley

Drilling temperature gradient holes.

AMAX Exploration
Eastern Oregon

Planning to drill temperature gradient holes in the La Grande and Vale areas. Three more exploration permits were issued to AMAX in March covering temperature gradient drilling in the Beulah Reservoir, Vale, and Paisley areas.

Phillips Petroleum Co.
Alvord Valley

Drilling temperature gradient holes.

Dept. of Geology and
Mineral Industries
Vale area

Planning to drill temperature gradient holes under a U.S. Geological Survey research grant.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Last month's report listed Coastal States Gas Co. as having filed on leases in Columbia County around the first of the year. This should be corrected to Gas Producing Enterprises, Houston, Texas.

Mobil was granted an option by the Lands Division to lease 40,000 acres of State land in western Oregon. Leases will be granted after environmental assessments are made and titles cleared.

OREGON - Offshore

Texaco, Inc., extended its Federal offshore exploration permit for another 6 months to November 6, 1975. This allows the company to conduct geological and geophysical studies beyond the 3-mile limit.

Shell Oil also extended its Federal offshore permit to February 1976.

REFINERIES IN OREGON

<u>Company</u>	<u>Capacity</u>
Chevron Asphalt Company 5501 N.W. Front Avenue Portland, Oregon 97210	18,000 barrels asphalt per day
Nu-Way Oil Co. (rerefining) 7039 N.E. 45th Avenue Portland, Oregon 97218	2,000 barrels lubricants per day
Ager & Davis Refining Co. 9901 N.E. 33rd Avenue Portland, Oregon 97211	3,500 barrels mixed grade oil per day

REFINERIES PROPOSED (Applications filed with DEQ)

Columbia Independent Refiners, Inc.	Portland	50,000 bbls/day
Cascade Energy, Inc.	Rainier	30,000 bbls/day
Charter Energy Company	St. Helens	52,400 bbls/day

WASHINGTON - Onshore

No activity in April, however a large amount of acreage is still under lease in Washington for oil and gas minerals.

WASHINGTON - Offshore

No activity in April.

GEOHERMAL ACTIVITY IN OREGON

Gulf Research & Development Co.	Monitoring temperature holes in Warner Valley, Lake County.
Geothermal Surveys, Inc.	Monitoring temperature in holes in Alvord Valley, Malheur County.
Amax Exploration, Inc.	Drilling temperature gradient holes near Burns, Paisley, Beulah Reservoir, and Vale.
Phillips Petroleum Co.	Completed its temperature study in Alvord Valley, Malheur County.
State of Oregon Dept. of Geology & Mineral Industries	Contract for drilling five 300-foot holes awarded to Burd Drilling Co., Pendleton, Oregon. The holes will be drilled north of the town of Vale, Malheur County.
Chevron Oil Co.	Resistivity surveys in Lake County.

The State Lands Division issued geothermal leases in April on scattered tracts in Alvord Valley and near the town of Vale in Malheur County and on State lands near Adel in Lake County. Rental was set at \$1.00 per acre for 3 years, \$3.00 per acre the fourth year, and \$5.00 per acre for succeeding years. If a discovery is made the State will receive a 10% royalty. The leases went to Intercontinental Energy Corp., Standard Oil Co., AMAX Exploration Co., and Max Millis of Portland.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Reichhold Energy, Inc., has begun a leasing program in western Oregon and has announced it will drill in Oregon this summer.

Mobil Oil Co. is continuing field studies this summer in western Oregon. The company has assembled an estimated 200,000 acres of leases along the margin of the Western Cascades.

OREGON - Offshore

Western Geophysical Co., Denver, Colorado, was issued a permit by the U.S. Geological Survey to conduct geophysical surveys along the Oregon coast this summer. Copies of data acquired under the permit must be submitted to the U.S. Geological Survey under the new regulations. The information will be kept confidential for a period of 10 years or longer.

WASHINGTON - Onshore

The Department of Natural Resources is holding a lease sale on 2000 acres of State lands in Lewis and King Counties, June 17, 1975. Union Oil Co. and M. F. Trask have filed applications.

WASHINGTON - Offshore

No activity in May.

GEO THERMAL ACTIVITY IN OREGON

USBLM ALVORD VALLEY LEASE SALES

1. Mickey Hot Springs - May 22

Al Aquitaine - 3 tracts, 7520 acres, \$5.83/acre average bid.

15 tracts were offered, 3 tracts leased, 8 received no bids, 4 bids were rejected as being too low.

2. Alvord Hot Springs - May 29

Republic Geothermal - 5 tracts, 15,000 acres, \$4.44/acre average bid.

Chevron Oil Company - 1 tract, 2560 acres, \$17.90/acre bid.

14 tracts were offered, 6 tracts leased, and 8 received no bids.

3. Borax Hot Springs - To be offered June 5, 1975.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Onshore

Reichhold Energy, Inc.
Crown-Zellerbach No. 1
State Permit No. 65
API No. 36-057-00004
NE $\frac{1}{4}$ sec. 22, T. 2 S., R. 10 W.
Tillamook County

Location is graded. Rig to move in around the third week of July. Contractor is Hunnicutt & Camp, Rio Vista, California. Northwest Natural Gas Co. has applied to the Oregon PUC for permission jointly explore with Reichhold.

OREGON - Offshore

No activity in June

WASHINGTON - Onshore

Discovery Oil and Gas, Inc.
Zion No. 1
NW $\frac{1}{4}$ sec. 15, T. 11 N., R. 2 W.
Lewis County

Preparing location. Proposed as a 2000' test hole.

GEOHERMAL ACTIVITY IN OREGON

Gulf Research & Development Co. Monitoring gradient holes in Warner Valley, Lake County.

AMAX Exploration, Inc. Drilling temperature gradient holes at Burns, Paisley, and Beulah Reservoir.

State of Oregon Dept. of Geology and Mineral Industries The Department completed drilling five 300' temperature gradient holes north of the town of Vale. The holes will be monitored for a 10-month period.

Geothermal Surveys, Inc. Continuing monitor gradient holes in Alvord Valley.

A second geothermal lease sale was held for the Borax Lake KGRA in Harney County on June 5, 1975. Successful bidders in this sale were:

Al Aquitaine Explorations	7,520 acres	Average bid -	\$ 6.00/acre
Republic Geothermal	10,091 acres	Average bid -	23.00/acre
Chevron Oil Co.	2,561 acres	Bid -	18.00/acre
Mapco, Inc.	6,333 acres	Average bid -	4.50/acre
Getty Oil Co.	2,126 acres	Bid -	5.25/acre
So. Union Production Co.	2,560 acres	Bid -	2.53/acre

A petition by the Sierra Club and the High Desert Study Group to the U.S. Circuit Court to halt the issuance of Alvord Valley leases was denied by the U.S. District Court in Portland on June 10, 1975. The USBLM was given permission to issue the leases based upon its environmental assessments.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Offshore

Western Geophysical Co., Denver, is running seismic surveys on outer continental shelf lands.

OREGON - Onshore

Reichhold Energy, Inc.	500'	Spud on 8-3-75. Approximately
Crown Zellerbach No. 1		500 feet of 9-5/8" surface casing
Permit No. 65		was set.
API No. 36-057-00004		
NE $\frac{1}{4}$ sec. 22, T. 2 S., R. 10 W.		
Tillamook County		

Mobil Oil Co. field party is working in western Oregon this summer again.

WASHINGTON - Offshore

No activity.

WASHINGTON - Onshore

Discovery Oil & Gas, Inc.	100"	Spud 6-15-75. Standing idle.
Zion No. 1		
NW $\frac{1}{4}$ sec. 15, T. 11 N., R. 2 W.		
Lewis County		

GEOHERMAL ACTIVITY IN OREGON

State of Oregon
Department of Geology
and Mineral Industries
Brothers fault zone
Harney County

Thermal gradient holes - depth approximately 200'. The program includes 24 holes along the north-west trending fault zone. A total of 13 holes have been drilled thus far. Larry Burd, Pendleton, is the drilling contractor.

AMAX Exploration, Inc.
Beulah Reservoir area
Malheur County

Thermal gradient holes - 8 holes to a depth of 150'.

Phillips Petroleum Co.
Newberry Crater area
Deschutes County

Thermal gradient holes. Will move in around Aug. 10, 1975. Phillips has not obtained a State permit as yet. Drilling is to be done on USBLM lands.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Offshore

No activity reported in August.

OREGON - Onshore

Reichhold Energy Corp.
Crown Zellerbach No. 1
Permit 65
API No. 36-057-00004
NE $\frac{1}{4}$ sec. 22, T. 2 S., R. 10 W.
Tillamook County

5557' T.D.

Plugged and abandoned
August 21, 1975.

Reichhold Energy Corp.
N.N.G. - Finn No. 1
Permit No. 66
API No. 36-053-00021
SW $\frac{1}{4}$ sec. 17, T. 6 S., R. 4 W.
Polk County

4500'

Drilling. Projected depth
7500', top of Siletz vol-
canics.

Reichhold Energy Corp.
N.N.G. - Merrill No. 1
Permit No. 67
API No. 36-047-00007
SW $\frac{1}{4}$ sec. 24, T. 8 S., R. 4 W.
Marion County

Location ready. Projected
depth 7500'.

WASHINGTON - Offshore

No activity reported.

WASHINGTON - Onshore

Discovery Oil & Gas, Inc.
Zion No. 1
NW $\frac{1}{4}$ sec. 15, T. 11 N., R. 2 W.
Lewis County

300'

Suspended.

Shell Oil Co. conducted seismic studies on its leases in central Washington last month. Shell reportedly holds more than 100,000 acres of leases in the area.

GEOHERMAL ACTIVITY IN OREGON

State of Oregon
Department of Geology
and Mineral Industries
Prospect wells
Harney County

The Department finished its thermal gradient drilling near Burns in August. A total of 30 holes were drilled along the Brothers Fault zone.

AMAX Exploration, Inc.
Prospect wells
Beulah Reservoir
Malheur County

The company finished drilling 8 thermal gradient holes near Beulah Reservoir.

Phillips Petroleum Company
Prospect wells
Newberry Crater area
Deschutes County

Phillips began drilling in August on a 19-hole program.

USBIM CRUMP GEYSER LEASE SALE

Chevron was the only company to bid on lands offered in the July 31, 1975, Crump Geyser KGRA lease sale. The bids ranged from \$5.12 to \$3.11 per acre for 9,462 acres (4 parcels). The remaining 14 parcels will be offered at a later sale. First year rental is set at \$2 per acre, escalating \$1 per acre per year for the next four years (5-year term - last year \$6 per acre).

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Offshore

Shell Oil Company was issued a geophysical exploration permit to explore Federal OCS lands by the U.S. Geological Survey on September 30, 1975.

Gulf Oil Company OCS geophysical permit was extended to October 20, 1975.

OREGON - Onshore

Reichhold Energy Corp.
NNG - Merrill No. 1
Permit No. 67
API No. 36-047-00007
SW $\frac{1}{4}$ sec. 24, T. 8 S., R. 4 W.
Marion County

1000'

Drilling. 9-5/8" surface casing cemented at 908'. This is a 5000' test of upper Eocene sands. Hunnicutt & Camp Drilling Co. is Contractor, Rio Vista, Cal.

Reichhold Energy Corp.
NNG - Finn No. 1
Permit No. 66
API No. 36-053-00027
SW $\frac{1}{4}$ sec. 17, T. 6 S., R. 4 W.
Polk County

7252' T.D.

Plugged and abandoned on Sept. 21, 1975.

Reichhold Energy Corp.
NNG - Crown Zellerbach No. 2
Permit No. 68
API No. 36-009-00006
NW $\frac{1}{4}$ sec. 8, T. 4 N., R. 3 W.
Columbia County

Location ready. USBIM announced on Oct. 2, 1975, that Columbia County leases to be issued.

WASHINGTON - Offshore

No activity reported.

WASHINGTON - Onshore

Discovery Oil & Gas, Inc.
Zion No. 1
NW $\frac{1}{4}$ sec. 15, T. 11 N., R. 2 W.
Lewis County

400'±

Suspended.

Northwest Pipe Line Corp.
Stratigraphic test holes
Lewis County

Northwest Pipe Line Corp. is planning five 2500' shallow test holes in Lewis County to explore for production or gas storage sites.

GEO THERMAL ACTIVITY IN OREGON

Al Aquitaine, Ltd.
Calgary, Alberta
Harney County

The Company has applied to the USBLM to drill gradient holes in Alvord Valley. Al Aquitaine has also agreed to take out a State permit and bond.

Phillips Petroleum Co.
Newberry Crater area
Deschutes County

Drilling gradient holes near Newberry Crater.

USB LM SECOND VALE LEASE SALE

The USBLM offered 6 lease units for bid in the Vale KGRA late in September. The bidding results were:

Union Oil Co.	Unit No. 1	2566 acres	Bid \$16.16 per acre
Union Oil Co.	Unit No. 2	1920 acres	Bid \$16.16 per acre
Geothermal Resources, Inc.	Unit No. 3	2560 acres	Bid \$ 3.00 per acre

Republic Geothermal, successful bidder in the first Vale lease sale, missed obtaining Unit No. 1 with a bid of \$11.56 per acre. Three of the units offered did not receive any bids.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Offshore

Gulf Oil Co. ran geophysical surveys along the Oregon coast in October. The company presumably made studies on state submerged lands as well as OCS lands since it asked to extend the state exploration permit.

OREGON - Onshore

Reichhold Energy Corp.
NNG-Merrill No. 1
Permit No. 67
API No. 36-047-00007
SW $\frac{1}{4}$ sec. 24, T. 8 S., R. 4 W.
Marion County

5282' T.D.

Plugged and abandoned on Oct. 13, 1975.

Reichhold Energy Corp.
NNG-Crown Zellerbach 2
Permit No. 68
API No. 36-009-00006
NW $\frac{1}{4}$ Sec. 8, T. 4 N., R. 3 W.
Columbia County

5805' T.D.

Plugged and abandoned on Oct. 31, 1975.

Mobil Oil Co. has completed its third summer season of field work in southwestern Oregon. The firm is continuing long-range stratigraphic studies in the region utilizing geophysical and geochemical methods.

The USBLM issued 8 oil and gas leases (14,079 acres) in Columbia County in October. These were the first such leases issued on Federal lands in Oregon since 1971 when a moratorium was placed on Federal lands in Oregon by the Secretary of the Interior. The leases were issued to Gas Producing Enterprises, Inc., Houston, Texas.

WASHINGTON - Offshore

No activity reported.

WASHINGTON - Onshore

Northwest Pipe Line Corp.
Gas storage test holes
Lewis County

The company has drilled 3 of the 5 holes planned - and reportedly have outlined a good prospect in T. 12 N., R. 1 E. Drilling contractor is Jack Taylor of Chehalis, Washington.

Shell Oil Company is continuing to build its oil and gas acreage in eastern Washington. A total of 4200 acres of Federal leases were applied for in October.

GEOHERMAL ACTIVITY IN OREGON

State of Oregon
Dept. of Geology
and Mineral Industries

Weyerhaeuser-Pacific Power
& Light Company
Weyerhaeuser No. 1
Permit No. 8
API No. 36-035-90002
NW $\frac{1}{4}$ sec. 15, T. 37 S., R. 7 E.
Klamath County

250'

San Juan Oil Company
(MAPCO subsidiary)
Wolfson Ranch No. 1
Permit No. 7
API No. 36-037-90002
NW $\frac{1}{4}$ sec. 22, T. 39 S., R. 24 E.
Lake County

Hydro-Search, Inc.
Geophysical exploration
Malheur County

Don Hull, of the Department, announced plans to extend gradient drilling northwestward along the Brothers Fault zone. Eleven 500-foot holes will be put down between Glass Buttes and Newberry Crater

Cemented 9-5/8" surface casing at 250'. Plans are to drill to 2000'. This is a geothermal test well (deep well permit - \$10,000 bond).

Preparing to spud. This will be a 7500' geothermal well. San Juan is drilling under a "Farm-out Agreement" with Gulf Oil Co. (Gulf owns the lease - San Juan obtains an override on royalty). Contractor is Geo Drilling Co., Phoenix, Ariz.

Hydro-Search, Inc., will conduct geophysical surveys to evaluate geothermal prospects in Harney and Malheur Counties. The company applied to explore on Federal lands.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Offshore

Gulf Oil Co. - Federal OCS permit for offshore seismic work.
Gulf Oil Co. - State offshore geophysical permit extended to June 30, 1976.
Texaco, Inc. - Federal OCS permit extended to May 6, 1976.

OREGON - Onshore

Reichhold Energy Corp. NNG - Crown Zellerbach No. 2 Permit No. 68 API No. 36-009-00006 NW $\frac{1}{4}$ sec. 8, T. 4 N., R. 3 W. Columbia County	5805' T.D.	Plugged and abandoned on 10-31-75. The USBLM issued 14 leases in Columbia County in October. These are the first Federal oil and gas leases issued in Oregon during the past four years.
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WASHINGTON - Offshore

No activity reported.

WASHINGTON - Onshore

Northwest Pipe Line Corp. Stratigraphic test holes Lewis County		The company is moving in on location #5. Projected depth is 2500'. These holes are to explore for underground storage of natural gas.
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Northwest Pipe Line Corp. Caldwell Creek #1 Sec. 16, T. 18 N., R. 18 W. Grays Harbor County	3000' T.D.	Shallow gas test. Abandoned.
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GEOHERMAL ACTIVITY IN OREGON

San Juan Oil Co. Permit No. 7 API No. 36-037-90002 NW $\frac{1}{4}$ sec. 22, T. 39 S., R. 24 E. Lake County	6000'	Drilling. Spudded on 11-5-75. Cemented 20" conductor at 310' w/534 sax - 13-3/8" surface casing cemented at 1030' w/1165 sax. Tested BOP w/1000 psi 15 min. Contractor Geo-Drilling, Inc., Phoenix. Rig especially designed for steam drilling.
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Al Aquitaine, Ltd. Calgary, Alberta Harney County		<u>Issued State Prospect Well Permit No. 14.</u> Al Aquitaine is planning to drill thermal gradient holes on its newly acquired leases in Alvord Valley. An environmental impact procedure is required since the work is being done after leases were obtained.
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Phillips Petroleum Co. Glass Buttes Lake County		<u>Issued State Prospect Well Permit No. 15.</u>
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OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Offshore

BBN-Geomarine Services USGS Geophysical Permit - OCS 75-30
Issued December 8, 1975, for a 6-month period. Company
proposes to run multisensor acoustic surveys.

BBN-Geomarine Services USGS Geological Permit - OCS 75-31
Issued December 1, 1975 to June 1, 1976. Company plans
to make a gravity coring survey.

OREGON - Onshore

NW Natural Gas Co.

Wesley Bruer, Consulting Geologist for
the gas company, appeared before the
State Public Utilities Commission on
Dec. 9, 1975, to ask that the company
be allowed to use rate payers' funds
for exploration. This was the second
time the company had asked for this
variance before drilling 4 wildcats this
summer in western Oregon. Bruer stated
that the firm had a much better chance
of discovery now than before drilling the
test holes.

WASHINGTON - Offshore

BBN-Geomarine Services permit to apply to West Coast area.

WASHINGTON - Onshore

NW Pipe Line Corp. 3000' $\pm$ T.D. Abandoned around Dec. 15, 1975. Testing
Stratigraphic Test #5 for storage structure.
SE $\frac{1}{4}$ sec. 28, T. 13 N., R. 1 W.
Lewis County

Shell Oil Company continued to add acreage to its Columbia Basin play in south central
Washington.

GEO THERMAL ACTIVITY IN OREGON

San Juan Oil Co.
Permit No. 7
API No. 36-037-90002
NW $\frac{1}{4}$ sec. 33, T. 39 S., R. 24 E.
Lake County

7516' T.D.

Plugged and abandoned Dec. 15, 1975. The company has the Geo Drilling Co. rig on standby until management decides if they want to drill a second hole.

Weyerhaeuser -
Pacific Power & Light Co.
Weyerhaeuser No. 1
API No. 36-035-90002
NW $\frac{1}{4}$ sec. 15, T. 37 S., R. 7 E.
Klamath County

600'±

Coring. Set 7" casing at 250', cemented to surface. Installed BOP and preparing to core continuously to 2000'. Justus Core Drilling, Meridian, Idaho.

Phillips Petroleum Co.
Permit No. 15
Geothermal prospect wells

Permit was issued to Phillips on Dec. 12, 1975 to conduct gradient hole drilling in the Glass Buttes area of Lake County.

Southern Union Production Co.

Was issued a permit by the USBLM on Oct. 31, 1975 to conduct geologic and geophysical surveys in the Klamath Falls area. A permit was also obtained from the State Lands Division for the same purposes.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Offshore

No activity reported in January

OREGON - Onshore

Mobil Oil Company continued acquiring scattered leases in southwestern Oregon. The company has established a land office in Salem with a staff of several persons.

WASHINGTON - Offshore

No activity reported in January.

WASHINGTON - Onshore

Washington Natural Gas Co.
Storage Unit No. 64
Sec. 7, T. 12 N., R. 1 W.

Projected depth of 4000'. Jackson Prairie gas storage field a few miles south of Chehalis, Washington. Storage zone in upper Eocene marine sandstone.

Shell Oil Company added another 5000 acres to its oil and gas leases in central Washington near the abandoned Rattlesnake Hills gas field. The company has assembled a block of 200,000 acres or more in the Columbia Plateau area.

GEOHERMAL ACTIVITY IN OREGON

San Juan Oil Co.
Wolfson Ranch No. 1
NW $\frac{1}{4}$ sec. 33, T. 39 S., R. 24 E.
Lake County

The company released the rig in January. Apparently no further drilling is planned for at least the next few months. The Wolfson Ranch has applied to convert the abandoned hole to a water well.

Weyerhaeuser -
Pacific Power & Light Co.
Weyerhaeuser No. 1
API No. 36-035-90002
NW $\frac{1}{4}$ sec. 15, T. 37 S., R. 7 E.
Klamath County

900' $\pm$

Coring ahead. Projected depth 2000'. Justice Core Drilling, Meridian, Idaho is the contractor.

Al Aquitaine
Alvord Valley
Harney County

Drilling gradient holes on its leases in Alvord Desert. Western Geophysical is the drilling contractor.

Phillips Petroleum Co.
Permits 12 and 15

Phillips Petroleum withdrew its applications for gradient drilling in the Newberry Crater and Glass Buttes areas after the State Energy Department's siting division withdrew additional area surrounding the craters. The company has decided there was not enough incentive to continue exploration.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Offshore

The USBLM is preparing to let contracts for impact studies related to future off-shore lease sales along the Oregon and Washington coasts. The Department of Oceanography at Oregon State University is expected to take part in the investigations.

OREGON - Onshore

Six USBLM districts in Oregon are preparing Environmental Assessment Reports for oil and gas lease applications by Mobil, Texaco, and Standard Oil Companies. The Washington, D.C., office of the U.S. Department of Interior has decided again to make a statewide impact statement for Oregon. Two previous attempts were made to prepare the statewide report but they are still being held in the Washington, D.C., office. Oregon is the only state where this procedure is being applied.

WASHINGTON - Offshore

See remarks under Oregon.

WASHINGTON - Onshore

Washington Natural Gas Co.
Storage Unit No. 64
Sec. 7, T. 12 N., R. 1 W.
Lewis County

3456' T.D.

Completed as water removal well
in Storage Zone 2.

Washington Natural Gas Co.
Storage Unit No. 65
Sec. 9, T. 12 N., R. 1 W.
Lewis County

Location ready, will spud in this
month.

Arabian Interests
Kittitas County

Considering drilling a 4000-10,000'
exploration hole 12 miles northeast
of Ellensburg. This is north of
large Shell Oil Co. lease block.

IDAHO

AMOCO Oil Co.

The company has made a small gas
discovery near Evanston, Wyoming
just 8 miles from the southeastern
border of Idaho resulting in a
leasing flurry in that State.

GEOHERMAL ACTIVITY IN OREGON.

San Juan Oil Co.
Wolfson Ranch No. 1
NW $\frac{1}{4}$ sec. 33, T. 39 S., R. 24 E.
Lake County

7516' T.D.

The Geo Drill rig was moved in February to Iron County, Utah, to drill a geothermal test for McCulloch Oil Co.

Weyerhaeuser -
Pacific Power & Light Co.
Weyerhaeuser No. 1
NW $\frac{1}{4}$ sec. 15, T. 37 S., R. 7 E.
Klamath County

1100'+

Coring ahead. Justice Core Drilling Co., of Meridian, Idaho, is the contractor. Geotherm Ex of Berkeley, California, is employed as consultant.

Phillips Petroleum Co.
Prospect well Permit No. 15
Glass Buttes area

The company notified the Dept. that it has decided to go ahead with the Glass Buttes project but will abandon exploration in the Newberry Crater area because of land withdrawals.

Hunt Oil Co.
Geophysical Exploration
Federal lands

The company plans to conduct electrical resistivity surveys in the Klamath Falls, Lakeview, and Warner Valley areas.

The U.S. Bureau of Land Management is currently preparing an Environmental Assessment Report prior to issuing leases in its Vale District. The USBLM issued its EAR for the Bully Creek area on February 19, 1976. This interest area is just west of the Vale area. A total of 14 applications are pending in the Bully Creek area. The report may be inspected at USBLM district offices.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Offshore

Shell Oil Co. issued USGS permit (OCS 75-27) in March to conduct offshore geophysical studies. The new permit runs to September 30, 1976.

Western Geophysical was granted an extension of its general USGS offshore exploration permit (OCS 75-25) to run to September 23, 1976.

Gulf Energy and Minerals Co. was granted an extension of its general USGS offshore exploration permit (OCS 75-26) to run to September 25, 1976.

OREGON - Onshore

Gulf Oil Co. has assigned some of its western staff to Oregon and Washington exploration recently. Gulf terminated oil and gas studies in Oregon in 1963 after drilling a dry hole at Halsey.

Reichhold Energy is contemplating more drilling in western Oregon in 1976 pending approval of the parent company.

The USBLM is currently working on Environmental Assessments affecting lease applications in five Oregon districts.

WASHINGTON - Offshore

No activity reported.

WASHINGTON - Onshore

El Paso Products Co.
Grays Harbor County #27-2
Sec. 27, T. 19 N., R. 9 W.

The company was issued State Permit #322 on March 23, 1976.

El Paso Products Co.
Grays Harbor County #28-1
Sec. 28, T. 19 N., R. 7 W.

The company was issued State Permit #323 on March 23, 1976.

Washington Natural Gas Co.
Storage Unit #65
Sec. 9, T. 12 N., R. 1 W.
Lewis County

1000'

Cemented 13-3/8" casing at 600'.

GEOHERMAL ACTIVITY IN OREGON

Weyerhaeuser -
Pacific Power & Light Co.
Weyerhaeuser #1
NW $\frac{1}{4}$ sec. 15, T. 37 S., R. 7 E.
Klamath County

1400'

Coring ahead. This hole to be drilled to 2000'.

Hunt Oil Company
Electrical resistivity surveys

The Hunt Oil Co. applied to the USBLM March 18, 1976 to conduct electrical surveys in the Owyhee Reservoir area of southeastern Oregon.

U.S. Forest Service
Mt. Hood project

The U.S. Forest Service is investigating the possibility of using geothermal energy for heating at the Mt. Hood resort. R. G. Bowen is consultant on the project.

State Department of Geology
and Mineral Industries
Western Cascades

The Department is planning gradient drilling in the Western Cascades this summer under a joint State and U.S. Geological Survey research program.

OIL AND GAS ACTIVITY IN THE NORTHWEST

OREGON - Offshore

Texaco, Inc., permit OCS 64-13, to conduct geological exploration on Federal shelf lands off the Oregon coast, was extended 6 months to November 6, 1976.

Texaco, Inc., permit OCS 75-28, to conduct geophysical operations in the same area was extended to October 1, 1976.

Aero Service, Houston, Texas, permit OCS 75-29, to conduct geophysical exploration on Federal shelf lands off the Oregon coast, was extended to October 20, 1976.

OREGON - Onshore

Reichhold Energy Corp.
Columbia County No. 1
State Permit No. 69
API No. 36-009-00007
NW $\frac{1}{4}$ sec. 11, T. 6 N., R. 5 W.
Columbia County

Shallow gas test. Projected depth 3500'. Cowlitz Formation sands. Located 1 $\frac{1}{2}$ miles NW of Mist. Permit to be issued May 15, 1976, provided all approvals are obtained.

Mobil Oil Co. is continuing to build its lease holdings in western Oregon. Present estimate of lease options totals approximately 1/2 million acres.

WASHINGTON - Offshore

No activity reported.

WASHINGTON - Onshore

El Paso Products Co.
Grays Harbor County #27-2
Sec. 27, T. 19 N., R. 9 W.

3130' T.D.

Abandoned 4/16/76.

El Paso Products Co.
Grays Harbor County 28-1
Still Creek

2300'+

Proposed depth 4000'. Will drill below 2000' with air. Contractor is George McGee Drilling Co., Casper, Wyoming.

GEOHERMAL ACTIVITY IN OREGON

Weyerhaeuser -
Pacific Power & Light Co.
Weyerhaeuser No. 1
NW $\frac{1}{4}$ sec. 15, T. 37 S., R. 7 E.
Klamath County

2000' T.D.

Hole was cored the entire depth. Will cement 1" tubing at 2000' and complete hole as a thermal monitor well.

Chevron Oil Co.
Minerals Division
Resistivity surveys

Southern Warner Valley.
Phoenix Geophysics, Inc.,
will make the surveys
for Chevron.

U.S. Bureau of Land Management
Klamath Falls KGRA sale

The USBLM will offer 4954 acres in the Klamath Falls KGRA on May 13, 1976. The sale will be held at the Portland office at 2:00 p.m. Rental is \$1.00 per acre for the first 5 years and escalates \$1.00 per acre each year thereafter.

Phillips Petroleum Co.
Glass Buttes area

The firm is believed to have completed this program of 500' gradient holes.

State of Oregon
Department of Geology
and Mineral Industries
Glass Buttes area

The Department plans to drill 11 500-foot gradient holes between Glass Buttes and Newberry Crater during the last half of May 1976.

OIL AND GAS ACTIVITY

OREGON - Offshore

Intermittent geophysical studies being conducted by several companies. BBN - Geomarine Services OCS Geophysical Permit No. 75-30 extended to December 1, 1976.

OREGON - Onshore

Reichhold Energy Corp.
Columbia County No. 1
State Permit No. 69
API No. 36-009-00007
NW $\frac{1}{4}$ sec. 11, T. 6 N., R. 5 W.

Location ready. Waiting on equipment. Projected depth 3500', Cowlitz sands.

Michael T. Halbouty is reported to be planning a wildcat well in Harney County in 1976 according to the June 21, 1976 issue of the Oil and Gas Journal, p. 94. Halbouty will also drill a deep test 10 miles west of Boise, Idaho in the western Snake River down-warp.

Pacific Fabricators, Inc., a Brown & Root Co. subsidiary, plans to build a plant at Astoria which will engage in fabricating offshore platforms for Alaskan exploration. Cost of the facility is estimated at \$75 million. At peak operation, PFI will employ 1200 persons.

Cascade Energy Co. has obtained a permit to construct a 30,000 B/D refinery at Rainier, Oregon. A feasibility study is being prepared to determine if the project is suitable for the area. Estimated cost of the plant is \$50 million. Cascade is owned by Caribou Four Corners Co., Afton, Wyoming.

WASHINGTON

El Paso Products Co.
Grays Harbor County 28-1
Still Creek Anticline
Price's Peak Area
Sec. 28, T. 19 N., R. 7 W.

3663' T.D.

Plugged and abandoned. Small amount of gas reported.

Washington Natural Gas Co.
Jackson Prairie Field
Storage Unit 66-1
Sec. 8, T. 12 N., R. 1 W.
Lewis County

1510' T.D.

Completed storage well.

Washington Natural Gas Co.
Storage Unit 67-1
Sec. 8, T. 12 N., R. 1 W.

3900' T.D.

Completed storage well.

Washington Natural Gas Co.
Storage Unit 68
Sec. 5, T. 12 N., R. 1 W.

Location made, projected depth 2700'.

Shell Oil Co.
Columbia Plateau
Central Washington

The company now holds in excess of 200,000 acres in the Columbia Plateau area. Shell will reportedly drill 2 or 3 5000' stratigraphic test wells this summer.

GEOTHERMAL ACTIVITY IN OREGON

Weyerhaeuser - Pacific Power & Light Weyerhaeuser No. 1 State Permit No. 8 NW $\frac{1}{4}$ sec. 15, T. 37 S., R. 7 E. Klamath County	2006' T.D. (Corrected)	Ran 1 $\frac{1}{4}$ " steel tubing to T.D. and cemented on the outside back to the surface. Will monitor temperature for several months.
Thermal Power Co. O'Connor Ranch No. 1 State Permit No. 9 SW $\frac{1}{4}$ sec. 35, T. 40 S., R. 9 W. Klamath County	3300'	Drilling ahead. Cemented 30" conductor at 40', 20" casing at 496', and 13-3/8" surface casing at 2378'. Installed and tested BOP.
Dept. Geology & Mineral Industries Prospect Well Permit No. 16 Glass Buttes Area Lake County		Drilled 9 of 14-hole program. Locations between Newberry Crater and Glass Buttes. Depths ranged from 150' to 500'. Sites were picked on silicic domes.
Chevron Oil Company Prospect Well Permit No. 17 So. Warner Valley Lake County		Plan to drill 21 temperature gradient holes to depths of no more than 500'. Operations on federal land.
Chevron Oil Company Prospect Well Permit No. 18 West of Vale Malheur County		Plan to drill 19 temperature gradient holes to 500'. Operations on federal land.
Chevron Oil Company Prospect Well Permit No. 19 Alvord Valley Harney County		Plan to drill 18 temperature gradient holes to 500'. Operations on federal land.
Dept. Geology & Mineral Industries Project Well Permit No. 20 Western Cascades		Plan to drill 14 500' temperature gradient holes, the northernmost hole located north of Breitenbush Hot Springs and the southernmost hole located east of Oakridge. Several holes involve joint programs with EWEB and PGE.
John Hook Northwest Natural Gas Co. Old Maid Flat Mt. Hood Area		Propose to drill 3 or 4 2000' geothermal test holes to develop a hot water source for the Portland metropolitan area. Application for a permit not yet received.

OIL AND GAS ACTIVITY

July 1976

OREGON

Reichhold Energy Corp.
Columbia County No. 1
State Permit No. 69
API No. 36-009-00007
NW $\frac{1}{4}$ sec. 11, T. 6 N., R. 5 W.

Northwest Natural Gas Co. probably will not participate in this drilling since the Oregon PUC ruled against the gas company using rate payers' funds to explore for natural gas. Reichhold may decide it does not want to drill this test hole without a partner.

Mobil Oil Co. continues to add to its lease holdings in western Oregon. Acreage under lease by this company exceeds 600,000 acres.

WASHINGTON

Northwest Pipe Line Corp.
Ethel Strat. Test No. 3
Sec. 12, T. 12 N., R. 1 W.
Chehalis area
Lewis County

Location prepared. Projected 1600' test hole.

Northwest Pipe Line Corp.
Ethel Strat. Test No. 4
Sec. 11, T. 12 N., R. 1 W.
Chehalis area
Lewis County

Location prepared. Projected 1600' test hole.

Washington Natural Gas Co.
Storate Unit 68
Sec. 5, T. 12 N., R. 1 W.
Lewis County

2900' T.D.

Completed as gas storage well.

Giant Minerals Co.
Betty J. No. 1
Sec. 35, T. 32 N., R. 40 E.
Chewelah area
Stevens County

Location prepared.

IDAHO

Michel Halbouty, Inc.
James No. 1
Sec. 27, T. 4 N., R. 1 W.
Ada County

8200'

Drilling. Projected depth 13,500', lower Miocene continental sediments. The hole is located approx. 8 miles west of the city of Boise. Noble Drilling Co., Wyoming, is contractor. This rig scheduled to move to a site near Burns, Oregon after the Idaho well is finished. Drilling of the Oregon hole is still tentative, issuance of federal leases may be the hold-up.

GEO THERMAL ACTIVITY

July 1976

OREGON

Thermal Power Co. O'Connor Ranch No. 1 State Permit No. 9 API No. 36-035-90003	5842' T.D.	Abandoned 7/29/76. Stuck pipe at 2410'. Backed off drill pipe, left drill collars in the hole. Pumped in a 200' cement plug on top of the fish.
State of Oregon Dept. Geology & Mineral Industries	500'	Hole No. 1 - SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 21 S., R. 4 E., Oakridge.
Western Cascades Project Prospect Well Permit No. 20	500'	Hole No. 2 - NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, T. 22 S., R. 5 E., Salt Creek.
	500'	Hole No. 3 - SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, sec. 2, T. 16 S., R. 6 E., west of McKenzie River.
	500'	Hole No. 4 - SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 20, T. 16 S., R. 7 E., west of White Branch Youth Camp.
	500'	Hole No. 5 - NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 23, T. 9 S., R. 6 E., west of Breitenbush Hot Springs.
John Hook - Northwest Natural Gas Co. Old Maid Flat West of Mt. Hood		Propose drilling two 2000' thermal gradient holes. The project is waiting on approval of the U.S. Forest Service.

OIL AND GAS ACTIVITY

OREGON

Reichhold Energy Corp.
Columbia County No. 1
State Permit No. 69
API No. 36-009-00007
NW $\frac{1}{4}$ sec. 11, T. 6 N., R. 5 W.

Location ready. No decision as yet
on whether this hole will be drilled
in 1976

Michel T. Halbouty
Burns area

Location has reportedly been staked.
USBIM has yet to issue leases.

Robert Orwig, geologist in charge for Mobil Oil Company's western operations, has been transferred to the company's international research team headquarters in Dallas. Bob said the Oregon play was nevertheless still high priority on the drilling prospect list. William Seely, University of Oregon graduate, is still on the western region staff.

In August Champlin Petroleum, Inc., of Denver filed for federal oil and gas leases in the Burns and Vale areas of eastern Oregon (Beulah and Nyssa).

WASHINGTON

Northwest Pipe Line Corp.
Ethel Strat. Test No. 3
Sec. 12, T. 12 N., R. 1 W.
Chehalis Area
Lewis County

Company will probably not drill this
test.

Northwest Pipe Line Corp.
Ethel Strat. Test No. 4
Sec. 11, T. 12 N., R. 1 W.
Chehalis Area
Lewis County

Company will probably not drill this
test.

Giant Minerals Co.
Betty J No. 1
Sec. 35, T. 32 N., R. 40 E.
Chewela Area
Stevens County

Will probably not be drilled.

GEO THERMAL ACTIVITY

State of Oregon
Department of Geology
and Mineral Industries
Prospect Well Permit #20

500"	Hole No. 6 - SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 6 S., R. 7 E., Austin Hot Springs
500'	Hole No. 7 - NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30, T. 6 S., R. 7 E., Austin Hot Springs
500'	Hole No. 8 - SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 6 S., R. 6 E., Along Collawash River
500'	Hole No. 9 - NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 7 S., R. 5 E., Near Nohorn Creek Bridge
490'	Hole No. 10 - SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 3 S., R. 9 E, Timberline Lodge. Left one joint drill pipe and air hammer in the hole. Top of fish at 380'. Ran 1 $\frac{1}{2}$ " PUC tubing to 380' and ce- mented. Completed as a temp- erature monitor hole.

John Hook -
Northwest Natural Gas Co.
and State of Oregon
Department of Geology
and Mineral Industries
Old Maid Flat
West of Mt. Hood

Two 2000' holes proposed. The project
is halted for the time being at least,
as Federal Court Judge Burns ruled that
no drilling could be done as Old Maid
Flat was within the Bull Run Reserve.

OIL AND GAS ACTIVITY

OREGON

Reichhold Energy Corp.
Columbia County No. 1
State Permit No. 69
API No. 36-009-00007
NW $\frac{1}{4}$ sec. 11, T. 6 N., R. 5 W.
Columbia County

Location ready. This test has been postponed until next year at least.

Michel T. Halbouty
Federal 1-10
State Permit No. 70
API No. 36-025-00023
NE $\frac{1}{4}$ sec. 10, T. 23 S., R. 29 E.
Harney County

Location ready. This test has been postponed because federal leases have not been issued.

The USBLM issued 57,300 acres of oil and gas leases to Mobil Oil Company, October 1, 1976. Except for offset acreage leased in Columbia County in 1975, these are the first federal leases to be issued since 1971 when the USDI issued a moratorium on oil and gas leasing in Oregon. Since that time there has been a "log jam" of applications for leases totalling nearly half a million acres.

Shell Oil Company was issued 30,000 acres of federal leases in central Washington in October 1976. The company has been assembling a lease block in the Columbia Plateau area for the past 2 years.

GEOHERMAL ACTIVITY

Dept. of Geology and Min. Industries-
Northwest Natural Gas Company
Prospect Well Permit No. 21
Old Maid Flat

Mt. Hood area. Two holes were proposed to go to a depth of 2000 feet. The project was postponed because the Federal District Court ruled the locations were within the Bull Run Reserve.

Thermal Power Company
Prospect Well Permit No. 22
Vale area.

Not issued. Thermal Power decided to drill a 1500-foot hole instead.

Dept. of Geology and Min. Industries
Prospect Well Permit No. 23
Succor Creek
Malheur County

The Department began drilling on a 4-hole program Oct. 27, 1976. The holes will be 500 feet or less in depth to be used in obtaining temperature gradient data. Boyles Brothers Drilling is the contractor.

Dept. of Geology and Min. Industries
Prospect Well Permit No. 24
Western Cascades

The Department began drilling on 5 more 500-foot gradient holes in the Western Cascades. These holes are located in the following areas: McKenzie, Oak Grove Fork of the Clackamas River, (2) south side of Mt. Hood and Eagle Creek (near Bonneville). Work started the last week of October. Contractor is Burt Jones Drilling Company.

Dept. of Geology and Min. Industries
Prospect Well Permit No. 25
Brothers Fault zone

Four test holes are proposed along Highway 78 southeast of Burns. Boyles Brothers will probably drill these holes.

Dept. of Geology and Min. Industries
Black Mountain
Geothermal Permit No. 10
SE $\frac{1}{4}$ sec. 21, T. 4 S., R. 28 E.
Morrow County

Moving in equipment November 1, 1976. The Department will drill a 1000-foot geothermal test well approximately 14 miles southeast of Heppner to measure temperature gradient in a pre-Tertiary intrusive. Larry Burd Drilling is contractor.

Republic Geothermal, Inc.
Butler V-1
Geothermal Permit No. 11
SE $\frac{1}{4}$ sec. 28, T. 18 S., R. 45 E.
Malheur County

Location. This is a farm-out on Magma Energy, Inc.'s leases east of Vale. Republic holds federal leases on adjacent lands. Proposed depth 1500 feet.

Republic Geothermal, Inc.
Butler 1/55-28
Geothermal Permit No. 12
SE $\frac{1}{4}$ sec. 28, T. 18 S., R. 45 E.
Malheur County

Location. Proposed depth 8000 feet. Farm-out from Magma Energy, Inc.

OIL AND GAS ACTIVITY

Reichhold Energy Corp.
Columbia County No. 1
State Permit No. 69
API No. 36-009-00007
NW $\frac{1}{4}$ sec. 11, T. 6 N., R. 5 W.
Columbia County

The permit for this hole was issued in May 1976. Reichhold reportedly wants a partner to drill its Oregon leases so has postponed drilling indefinitely. Will drop from activity report until new action occurs.

Michel T. Halbouty
Federal 1-10
State Permit No. 70
API No. 36-025-00023
NE $\frac{1}{4}$ sec. 10, T. 23 S., R. 29 E.
Harney County

Drilling has been postponed until next spring at least because essential federal leases have not been issued.

Champlin Petroleum, Inc., Denver, is continuing to build a lease position along the northwestern border of the Western Snake River basin in Malheur County. The company apparently is planning its own exploration and is not just speculating on major company drilling programs.

Gas Producing Enterprises, Inc., Denver, Colorado, began leasing in Coos County in November. It is believed that Phil Brogan, Jr., is consulting geologist for the firm.

GEOHERMAL ACTIVITY

Republic Geothermal, Inc.
Butler leases
Vale area
Malheur County

Republic has postponed drilling of two proposed deep geothermal tests near Vale. The holes were to be drilled as "farm-outs" on Magma Energy leases.

USBLM Lease Sale
December 9, 1976

The USBLM will re-offer leases not bid on in earlier sales on Dec. 9, 1976. The leases to be re-offered are located in:

Vale KGRA
Crump Geyser KGRA
Klamath Falls KGRA
Summer Lake KGRA

State of Oregon
Dept. of Geology & Mineral Industries
Prospect Well Permit #23

Propose to drill four 500-foot
gradient holes in the Succor Creek
area, Malheur County, T. 22-26 S.,
R. 46 E.

State of Oregon
Dept. of Geology & Mineral Industries
Prospect Well Permit #24

Proposed to drill five 500-foot
gradient holes as an extension of
the Western Cascade project:

- (1) SE $\frac{1}{4}$ sec. 11, T. 15 S., R. 6 E.
- (2) NE $\frac{1}{4}$ sec. 28, T. 15 S., R. 7 E.
- (3) SE $\frac{1}{4}$ sec. 4, T. 6 S., R. 7 E.
- (4) SE $\frac{1}{4}$ sec. 21, T. 2 N., R. 7 E.
- (5) SW $\frac{1}{4}$ sec. 16, T. 3 N., R. 8 E.

State of Oregon
Dept. of Geology & Mineral Industries
Prospect Well Permit #25

Proposed to drill four 500-foot
gradient holes as an extension of
the Brothers Fault Zone study:

- (1) NW $\frac{1}{4}$ sec. 10, T. 27 S., R. 34 E.
- (2) NE $\frac{1}{4}$ sec. 27, T. 27 S., R. 35 E.
- (3) SE $\frac{1}{4}$ sec. 30, T. 27 S., R. 36 E.
- (4) NE $\frac{1}{4}$ sec. 15, T. 28 S., R. 36 E.

AMAX Exploration, Inc.
Prospect Well Permit #26

Proposed to drill 42 450-foot gradient
holes in the Billy Creek area, Malheur
County, T. 17-18 S., R. 41-43 E.

GEOHERMAL ACTIVITY

State of Oregon Dept. of Geology & Min. Ind. Permit No. 12 NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21 T. 4 S., R. 28 E. Morrow County	(815' TD)	Located near Black Mt. approximately 15 mi. southeast of the town of Heppner in Morrow County. Drilled in granitic intrusive.
State of Oregon Dept. of Geology & Min. Ind. Prospect Well Permit No. 23		Gradient hole project, Succor Creek area, Malheur County: SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 21, 23 S., 46 E. - 469' TD NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, 25 S., 46 E. - 500' TD NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 29, 26 S., 46 E. - 500' TD Two state oil and gas re- - 1185' TD entered holes NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18, 18 S., 45 E.
State of Oregon Dept. of Geology & Min. Ind. Prospect Well Permit No. 24		Extension of the Western Cascade gradient hole project: SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, 15 S., 6 E. - 210' TD NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, 15 S., 7 E. - 170' TD SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 4, 6 S., 7 E. - 130' TD NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 25, 3 S., 8 $\frac{1}{2}$ E. - 270' TD SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 16, 3 S., 8 E. - 410' TD
State of Oregon Dept. of Geology & Min. Ind. Prospect Well Permit No. 25		Extension of drilling gradient holes along Brothers Fault Zone. Project can- celled.
AMAX Exploration, Inc. Prospect Well Permit No. 26		Drilling 42 450-foot temperature gradi- ent holes in the Bully Creek area, Malheur County, T. 17-18 S., R. 41-43 E.

The USBLM held a re-offering of scattered tracts in Oregon KGRA's in December. A total of approximately 14,000 acres were bid upon. Companies involved in the bidding were: Chevron Oil, Union Oil, Southern Union Prod. Company, and AMAX Exploration, Inc. Union made the top bid with \$21.11 per acre.

Thermal Power Company may have discovered the world's largest geothermal well at Roosevelt Hot Springs, Utah. "Utah State 72-16" tested flashed steam at 1 million pounds per hour. Temperature was 432° and pressure 355 psig.

OIL AND GAS ACTIVITY

OREGON

Reichhold Energy Corp.
Columbia County No. 1
State Permit No. 69
API No. 36-009-00007
NW $\frac{1}{4}$ Sec. 11, T. 6 N., R. 5 W.
Columbia County

Permit issued in May 1976. Held up on participation agreements. Will probably spud in spring of 1977.

Michel T. Halbouty
Federal No. 1-10
State Permit No. 70
API No. 36-025-00023
NE $\frac{1}{4}$ sec. 10, T. 23 S., R. 29 E.
Harney County

Permit issued in October 1976. Delay in issuance of federal leases postponed fall drilling. Will probably drill in early summer of 1977.

The U.S. Bureau of Land Management issued Standard Oil Company 27,000 acres of leases in Harney County in December 1976. This is part of the acreage which held up the Halbouty drilling.

John Batts, independent from Billings, Montana, applied for more than 50,000 acres of oil and gas leases in southwestern Oregon. Apparently this activity is for exploration prospects and not for speculation on drilling to be done by others.

OIL AND GAS ACTIVITY

OREGON - Onshore

Reichhold Energy Corp.
Columbia County No. 1
State Permit No. 69
API No. 36-009-00007
NW $\frac{1}{4}$ sec. 11, T. 6 N., R. 5 W.
Columbia County

Permit still active. Drilling may
be undertaken by early summer.

Michel T. Halbouty
Federal No. 1-10
State Permit No. 70
API No. 36-025-00023
NE $\frac{1}{4}$ sec. 10, T. 23 S., R. 29 E.
Harney County

Permit still active. Drilling may
be undertaken by late spring.

The U.S. Bureau of Land Management issued an additional 59,000 acres of leases to Mobil Oil Company in January 1977 covering lands in Douglas and Lane Counties. Mobil now has an estimated 700,000 acres of oil and gas leases in western Oregon.

GEOHERMAL ACTIVITY

Republic Geothermal, Inc.
Butler No. V-1
State Permit No. 13
SE $\frac{1}{4}$ sec. 28, T. 18 S., R. 45 E.
Malheur County

Permit still active. Drilling postponed.

Republic Geothermal, Inc.
Butler No. 1/55-28
State Permit No. 14

City of Eugene
Eugene Water & Electric Board

Applied for non-competitive federal
leases in the upper Clackamas
drainage area, T. 7 S., R. 7 E.

KGRA - Tentative Dates for Lease Sales

The March 17, 1977, and April 14, 1977, dates for sale of lands within the Burns Butte KGRA and Breitenbush KGRA have been rescheduled:

Burns Butte KGRA	T. 23 S., R. 30 E., WM	June 9, 1977
Breitenbush KGRA	T. 8 & 9 S., R. 7 E., WM	July 14, 1977
Belknap-Foley Springs	T. 16 S., R. 6 E., WM	July 6, <u>1978</u>
McCredie Hot Springs	T. 21 S., R. 4 & 5 E., WM T. 22 S., R. 4 E., WM	October 5, <u>1978</u>
Carey Hot Springs	T. 6 S., R. 6 & 7 E., WM	January 1, <u>1979</u>
Newberry Caldera	T. 21 & 22 S., R. 12 & 13 E., WM	March 1, <u>1980</u>

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Oil and Gas Activity

Agoil of Oregon
Hay Creek Ranch #2
State Permit #76
API #36-031-00005

2065' TD Prep to plug and abandon.

Farnham Chemical Co.
W. Smith #1
State Permit #78
API #36-054-00005

Drilling partners signed up, now
looking for an operator to drill
3-5000' holes.

Mobil Oil Co.
Ira Baker Unit #1
State Permit #81
API #36-043-00008
NE $\frac{1}{4}$ Sec. 28, T. 15S, R. 3W
Linn County

7500' Cemented 9 5/8" Csq at 7019'.
Drilling ahead.

Reichhold Energy Corp.
Columbia County #5
State Permit #87
API # 36-009-00012
NW $\frac{1}{4}$ Sec. 10, T. 6N, R. 5W
Columbia County

3116' TD Set cement plugs. Whipstock at
500' and redrilling the hole. Depth
of new hole 1100' on this date.

Reichhold Energy Corp.
Grimsbo #1
State Permit #88
API # 36-009-00013
SE $\frac{1}{4}$ Sec. 9, T. 6N, R. 5W
Columbia County

Location being prepared.

Reichhold Energy Corp.
Libel #1
State Permit #89
API # 36-009-00014
NW $\frac{1}{4}$ Sec. 15, T. 6N, R. 5W
Columbia County

Location being prepared.

Reichhold Energy Corp.
Columbia County #6
State Permit #91
API #36-009-00015
SW $\frac{1}{4}$ Sec. 10, T. 6N, R. 5W
Columbia County

Location prepared.

Reichhold Energy Corp.
Columbia County #7
State Permit #92
API #36-009-00016
SE $\frac{1}{4}$ Sec. 4, T. 6N, R. 5W
Columbia County

Location being prepared.

John T. Miller
Bursell #1
State Permit #90
API #36-053-00024
NW $\frac{1}{4}$ Sec. 14, T. 8S, R. 5W
Polk County

Location being prepared. Permit will
be issued as soon as the \$10,000
drilling bond is posted with the Dept.

American Quasar, Denver, Colorado, world's largest drilling fund company has acquired nearly 200,000 acres of oil and gas leases in NW Oregon and SW Washington. The company will reportedly announce its 1979 drilling program early in July. Exxon and Chevron Resources are also reported to be leasing in NW Oregon.

Champlin Petroleum Co., Denver, Colorado filed 50,000 acres of federal oil and gas leases in June. The leases are located in Wasco and Gilliam Counties. There now is more land leased for oil and gas minerals than ever before in Oregon. Total acres under lease are in excess of 2 million acres.

Geothermal Activity in Oregon

Prospect Holes

Phillips Petroleum Co.
Prospect Well Permit #38
Brothers Fault Zone
Harney County

Governing Board granted an extension of this permit on June 22, 1979 to allow drilling of several "in-fill" gradient holes.

NW Natural Gas Co.
Prospect Well Permit #48
Neals-Bully Creek
Malheur County

Permit to drill 2-500' temperature gradient holes.

Technology International, Inc.
Prospect Well Permit #49
Vale Area
Malheur County

Permit to drill 40-150' temperature gradient holes.

Phillips Petroleum Co.
Prospect Well Permit #50
Wagontie Area
Lake County

Application to drill 26-500' temperature gradient holes.

Francana Resources, Inc.
Prospect Well Permit #51
Glass Buttes Area
Lake County

Application to drill 9-500' temperature gradient holes.

Chevron Resources Co.
Prospect Well Permit #52
So. Crump Lake
Lake County

Application to drill 12-500' temperature gradient holes.

Chevron Resources Co.
Prospect Well Permit #53
Neals-Bully Creek
Malheur County

Application to drill 5-500' temperature gradient holes.

Geothermal Wells

U.S. Geological Survey
Geothermal Well Permit #45
Newberry Crater
SW $\frac{1}{4}$, Sec. 31, T. 21S, R. 31E
Deschutes County

1100' Will deepen this hole to 3000' beginning around July 1, 1979.

Ore Ida Foods, Inc.
Geothermal Well Permit #46
City of Ontario
NE $\frac{1}{4}$, Sec. 3, T. 18S, R. 47E
Malheur County

Plan to begin drilling by July 15, 1979 on an 8000' geothermal test well. Perryman Drilling Co., Rio Vista, Calif. will be the contractor.

Chevron Resources Co.
 Geothermal Well Permit #48
 " " " 49
 " " " 50
 " " " 51
 " " " 52
 " " " 53
 " " " 54
 " " " 55
 " " " 56

Started drilling in May--at Bully Creek.

SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 33, T. 17S, R. 43E
 SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 4, T. 18S, R. 43E
 SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 8, T. 18S, R. 43E
 SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 3, T. 18S, R. 43E
 NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 28, T. 17S, R. 43E
 NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 15, T. 18S, R. 43E
 SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 9, T. 18S, R. 43E

Union Oil Company
 North Klamath County
 Geothermal Well Permit #56
 " " " 57
 " " " 58
 " " " 59
 " " " 60
 " " " 61
 " " " 62
 " " " 63
 " " " 64

Propose to drill 9-1000' temperature gradient holes.

NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 2, T. 24S, R. 11E
 SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 5, T. 23S, R. 11E
 SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 29, T. 23S, R. 11E
 SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 15, T. 26S, R. 12E
 SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 36, T. 26S, R. 12E
 SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 32, T. 25S, R. 12E
 SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 12, T. 17S, R. 10E
 SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 30, T. 17S, R. 11E
 SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 27, T. 16S, R. 10E

Technology International, Inc.
 (Magma Energy) La Grande No. 1
 Redrill original hole
 Geothermal Well Permit #3RD
 Hot Lake
 Union County

2730' Orig. TD Have applied to drill out plug and re-log the hole.
 May deepen. Steve Munson, project manager.

NW Natural Gas Co.
 U.S.F.S. #1 (Hood Loop Jct.)
 Geothermal Well Permit #65
 Clackamas County

Propose to drill a 1000' temperature gradient hole.

NW Natural Gas Co.
 Geothermal Well Permit #66
 Zig Zag #1
 Clackamas County

500' Drilling, diorite intrusive.
 8" surface casing cemented at 200'.

NW Natural Gas Co.
 Still Creek #1
 Geothermal Well Permit #67
 Clackamas County

Propose to drill a 1000' temperature gradient hole.

Eugene Water & Electric Board
 Geothermal Well Permit #68
 " " " 69
 " " " 73
 " " " 74
 " " " 75
 " " " 76
 " " " 77
 " " " 78
 " " " 79

2000' Temperature gradient holes.
 SE $\frac{1}{4}$ Sec. 9, T. 12S, R. 7E, Linn County
 SE $\frac{1}{4}$ Sec. 32, T. 13S, R. 7E, Linn County
 SE $\frac{1}{4}$ Sec. 5, T. 7S, R. 8E, Clackamas Co.
 NE $\frac{1}{4}$ Sec. 10, T. 7S, R. 8E, Clackamas Co.
 SW $\frac{1}{4}$ Sec. 3, T. 7S, R. 7E, Clackamas Co.
 NE $\frac{1}{4}$ Sec. 35, T. 7S, R. 8E, Clackamas Co.
 SE $\frac{1}{4}$ Sec. 16, T. 8S, R. 8E, Marion Co.
 NW $\frac{1}{4}$ Sec. 31, T. 8S, R. 8E, Marion Co.
 NE $\frac{1}{4}$ Sec. 4, T. 13S, R. 7E, Linn County

Jerry

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OIL AND GAS ACTIVITY

Agoil of Oregon
Hay Creek Ranch No. 1
State Permit No. 76
API No. 36-031-20002
NE $\frac{1}{4}$ sec. 23, T. 11 S., R. 15 E.
Jefferson County

Reportedly planning to
spud by the end of January, 1979.
Proposed depth 5,500'. Agoil
has also filed for a second
permit to drill in this area.

Farnham Chemical Company
State Permit No. 78
W. Smith No. 1
NW $\frac{1}{4}$ sec. 32, T. 11 S., R. 1 W.
Linn County

Reported to be ready to
spud in February 1979.
Proposed depth 4,500'.
Farnham has obtained
permits for five other
holes in Linn County.

Mobil Oil Company
Sutherlin Unit No. 1
State Permit No. 75
API No. 36, T. 24 S., R. 5 W.

9200'

Drilling ahead. Brinker-
hoff Drilling Company,
contractor, Denver, Colorado.
Mobil has obtained permits
to drill two more holes in
Linn County.

Coos County held an oil and gas lease sale covering 13,000 acres of County
lands on December 21, 1978. Norton Oil Company, Springfield, Oregon was the
only bidder for the leases. No bonus was bid, only a minimum of \$1 per acre
annual rental was offered by Norton.

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GEO THERMAL ACTIVITY IN OREGON

DOGAMI

Prospect Well Permit 45
Mt. Hood Area

Completed drilling 11
500' temperature gradient
holes around the base of
Mt. Hood. Additional drill-
ing will probably be done next
summer depending on analysis of
temperature information collect-
ed in the first 11 holes.

Northwest Natural Gas Company
Prospect Well Permit No. 47
Old Maid Flat Area,
Clackamas County

1320' TD

Deepened 500" gradient hole on
Clear Fork S.W. $\frac{1}{4}$, Sec. 17, T 2 S,
R 8 E.

Ore-Ida Foods
Geothermal Well Permit #46
Ontario City Limits
SW NE $\frac{1}{4}$ Sec. 3, T 18 S, R 47 E
Malheur County

Prep. to drill on 8,000'
test hole to obtain hot water
for a food processing plant.
This project is 47% funded
by a USDOE grant.

Ore-Ida Foods
Geothermal Well Permit #47
Ontario City Limits
NS SE $\frac{1}{4}$ Sec. 3, T18S, R47E
Malheur County

If the first test hole is
successful this hole will
be drilled.