WELL CONSTRUCTION PERMIT

for

Kihei-Unocal Monitor Wells
Well Nos. 4427-01M to 03M
Kihei, Maui

TO:  Unocal Marketing & Refining
P.O. Box 659
Honolulu, HI 96807

In accordance with Department of Land and Natural Resources Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", your application to construct three monitor wells (Well Nos. 4427-01M to 03M) in the vicinity of Maui Petroleum, Hobron Lane, TMK: 3-7-11:21, is approved, subject to the following conditions:

1. The Commission on Water Resource Management Staff (Commission staff), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, before any work by this permit commences.

2. The wells shall be used for ground water quality monitoring, sampling, and testing only.

3. The following shall be submitted to the Commission staff within 30 days after completion of the wells:
   a. Well Completion Reports.
   b. As-built sectional drawings of the wells.
   c. Plot plan and map showing the exact locations of the wells.
   d. Periodic reports of monitoring and testing results.

4. The applicant shall comply with all applicable laws, rules, and ordinances.
5. This permit may be revoked if work is not started within six months of the date of issuance or if work is suspended or abandoned for six months. The work shall be completed within two years of the date of issuance.

6. Upon completion of monitoring operations, the applicant shall obtain a well construction permit to seal the wells with cement grout in a manner approved by the Commission.

WILLIAM W. PATY
Chairperson
Commission on Water Resource Management

JUL 20 1992
Date of Issuance

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed.

Applicant’s Signature: Bruce Chickering
Date: 7/27/92

Printed Name: Bruce Chickering

Firm or Title: Unocal

Please sign and return one copy of this permit to the Commission staff and retain a copy for your record.

Enc. (Well Completion Report form)
c: USGS
   Department of Health
      Safe Drinking Water Branch
      Solid and Hazardous Waste Branch
      Ground Water Protection Program
   Maui Department of Water Supply
   Dames & Moore
Mapped, edited, and published by the Geological Survey
Revised in cooperation with Hawaii Dept. of Transportation
Control by USGS and NOS/NOAA
Topography by photogrammetric methods from aerial photographs
taken 1950. Field checked 1954. Revised from aerial photographs
Selected hydrographic data compiled from NOS/NOAA charts 4116
and 4130. This information is not intended for navigational
purposes
Projection and 10,000-foot grid ticks: Hawaii coordinate system,
zone 2 (transverse Mercator) Clarke spheroid 1866. Old Hawaiian Datum
1000-Meter Universal Transverse Mercator grid ticks, zone 4, shown
in blue. International spheroid. To place on the predicted North
American Datum 1983 move the the projection lines 356 meters north and
292 meters west as shown by dashed corner ticks

From U.S. Geological Survey map,
Scale = 1:24000,
Puu O Kali, Hawaii
1983
APPLICATION FOR
WELL CONSTRUCTION PERMIT
PUMP INSTALLATION PERMIT

INSTRUCTIONS: Please print or type and send completed application with attachments to the Division of Water and Land Development, P.O. Box 373, Honolulu, Hawaii 96829. Application must be accompanied by a non-refundable filing fee of $15.00 plus $1.00 per page for reproduction. If necessary, phone 877-5523.

1. WELL LOCATION/NAME
   Island: Maui
   Tax Map Key: 3-7-001-031
   Address: Maui Petroleum, Hakan Lane, Kahului, Maui, Hawaii
   (Attach a USGS map (scale 1"=2000') and property tax map showing well location referenced to established property boundaries.)

2. WELL OWNER
   Firm Name: Unocal Marketing Refining
   Contact Person: Renae Huddleston
   Address: P.O. Box 159
   Honolulu, HI 96807
   Phone: 522-1451

   LANDOWNER
   Firm Name: A and B Properties
   Contact Person: —
   Address: 33 Lower Avenue, Suite 400
   Kahului, Maui, HI 96732
   Phone: 877-5523

3. PROPOSED CONTRACTOR FOR: □ Well Drilling □ Pump Installation
   Name: PR Drilling Company, Inc.
   Address: 73-561 Kamehameha Street
   Wahiawa, HI 96786
   Phone: 622-2631

   Contractor's License No.: C 9637

4. PROPOSED WORK
   □ Drill New Well □ Deepen □ Alter □ Install New Pump □ Replace Pump
   □ Redrill □ Seal □ Abandon □ Modify Pump
   (Briefly describe the proposed work and fill in the diagram on the back of this form.)

5. PROPOSED USE
   □ Municipal (including hotels, stores, etc.) □ Domestic (individual, noncommercial water systems)
   □ Irrigation (specify) □ Industrial □ Military
   □ Other (specify) monitor groundwater

6. PROPOSED AMOUNT OF WITHDRAWAL
   _______ gallons per day

7. PROPOSED PUMP INFORMATION
   N/A
   Pump Type: □ Vertical Turbine □ Submersible □ Centrifugal
   Motor: □ Diesel □ Gas □ Electric: ____________
   Rated Pump Capacity _______ gallons per minute (gpm)

   Well Owner (print) ____________________________ Landowner (print) ____________________________
   Signature __________________ Date ________________
   __________________ Signature __________________ Date ________________

For Official Use Only:
Field Checked By _______________ Latitude _______________ Hydrologic Unit
Date _______________ Longitude _______________ State Well No. G-6427-076-038

Kihe-Uhocal
Briefly describe the proposed work:

The boring for well installation will be drilled with a truck-mounted drill rig equipped with 4-inch hollow stem auger. The well will be installed into the boring as described below.

PROPOSED SECTION OF WELL

Elevation at top of casing 10 ft., msl.

Cement Grout — ft.
Bentonite seal 1 ft.
Hole Dia. 10 in.

Total Depth 12 ft.
Rock Packing 11 ft.
(Silica sand)

Ground Elev. 10 ft., msl*

Solid Casing:
Material PVC
Length 2 ft.
Diameter 4 in.
Wall thickness Schedule 40 in.

Casing: / /Perforated Screen
Material PVC
Length 10 ft.
Diameter 4 in.
Wall thickness Schedule 40 in.
Openings 0 sq. in./L.F.

Open Hole: N/A
Length
Diameter in.

*Approximate elevation at time of filing application. Final elevation (msl) by a surveyor licensed by the State must be submitted at start of construction.
Locations of wells MW-50, MW-51, and MW-52
Maui Petroleum
Kahului, Maui, Hawaii

Legend:
- Exploratory Soil Boring
- PVC Monitoring Well
- Recovery Pit
- Exploratory Test Pit (FP) (backfilled)
- Approx.
- Locations of new wells (marked with paint)
APPLICATION FOR

WELL CONSTRUCTION PERMIT  
PUMP INSTALLATION PERMIT

INSTRUCTIONS: Please print or type and send completed application with attachments to the Division of Water Resource Management, State of Hawaii, 1200 punchboard, Honolulu, Hi 96813. Application must be accompanied by a non-refundable filing fee of $25.00 for a U.S. map (scale 1"=2000') and property tax map showing well location referenced to established property boundaries.

1. WELL LOCATION/NAME
   Island: Maui  
   Tax Map Key: 3-7-011-021
   Address: Maui Petroleum, Helen Lane, Kahului, Maui, Hawaii.
   (Attach a USGS map (scale 1"=2000') and property tax map showing well location referenced to established property boundaries.)

2. WELL OWNER
   Firm Name: Wessel Marketing/Refining
   Contact Person: Bruce Huddleston
   Address: P.O. Box 659
   Honolulu, HI 96807
   Phone: 522-7167

3. PROPOSED CONTRACTOR FOR: ☑ Well Drilling  ☐ Pump Installation
   Name: PR Drilling Company, Inc.
   Address: 235 Kalani Street
   Wahiawa, HI 96786
   Phone: 622-2631
   Contractor's License No.: C9637

4. PROPOSED WORK
   ☑ Drill New Well
   ☐ Deepen
   ☐ Alter
   ☐ Install New Pump
   ☐ Replace Pump
   ☐ Redrill
   ☐ Abandon
   ☐ Modify Pump
   (Briefly describe the proposed work and fill in the diagram on the back of this form.)

5. PROPOSED USE
   ☐ Municipal (including hotels, stores, etc.)
   ☐ Domestic (individual, noncommercial water systems)
   ☐ Irrigation (specify) Other (specify) Monitor Groundwater
   ☐ Industrial

6. PROPOSED AMOUNT OF WITHDRAWAL
   __________ gallons per day

7. PROPOSED PUMP INFORMATION
   Pump Type: ☐ Vertical Turbine  ☐ Submersible  ☐ Centrifugal
   Motor: ☐ Diesel  ☐ Gas  ☐ Electric:
   Rated Pump Capacity __________ gallons per minute (gpm)
   Rated Horsepower __________

Well Owner (print) ________________________  Landowner (print) ________________________
Signature ________________________  Signature ________________________
Date ________________________  Date ________________________

For Official Use Only:
Field Checked By ________________________  Latitude ________________________  Hydrologic Unit ________________________
Date ________________________  Longitude ________________________  State Well No. ________________________
Briefly describe the proposed work:

The boring for well installation will be drilled with a truck-mounted drill rig equipped with 4-inch hollow stem auger. The well will be installed into the boring as described below.

PROPOSED SECTION OF WELL

Elevation at top of casing
10 ft., msl.

Ground Elev. 10 ft., msl*

Cement Grout — ft.

Bentonite seal 1 ft.
Hole Dia. 10 in.

Total Depth 12 ft.

Rock Packing 11 ft. (silica sand)

Solid Casing:
Material PVC
Length 2 ft.
Diameter 4 in.
Wall thickness Schedule 40 in.

Casing: / Perforated // Screen
Material PVC
Length 10 ft.
Diameter 4 in.
Wall thickness Schedule 40 in.
Openings 0.020 in. sq. in./L.F.

Open Hole: N/A
Length
Diameter ________________ in.

*Approximate elevation at time of filing application. Final elevation (msl) by a surveyor licensed by the State must be submitted at start of construction.
Locations of wells HW-50, HW-51, and HW-52
Maui Petroleum
Kahului, Maui, Hawaii

Legend:
- Exploratory Soil Boring
- PVC Monitoring Well
- Recovery Pit
- Exploratory Test Pit (TP) (backfilled)
- Approx.
- Locations of new wells (marked with paint)

Free Product Thickness
1/10/92

Kahului, Maui Petroleum
APPLICATION FOR

WELL CONSTRUCTION PERMIT
PUMP INSTALLATION PERMIT

INSTRUCTIONS: Please print or type and send completed application with attachments to the Division of Water and Land Development, P.O. Box 372, Honolulu, Hawaii 96819. Application must be accompanied by a non-refundable filing fee of $5.00 payable to the Department of Land and Natural Resources. (Filing fee waived for government agencies.) If necessary, phone 548-7553, Hydrology/Geneology Section for assistance.

1. WELL LOCATION/NAME: Mw-52
   Island: Maui
   Tax Map Key: 3-7-01-021
   Address: Maui Petroleum, Haban Lona, Kahului, Maui, Hawaii
   (Attach a USGS map (scale 1"=2000') and property tax map showing well location referenced to established property boundaries.)

2. WELL OWNER
   Firm Name: Island Marketing & Refining
   Contact Person: Bruce Huddleston
   Address: P.O. Box 459
              Honolulu, HI 96807
   Phone: 522-7659
   LANDOWNER
   Firm Name: A and B Properties
   Contact Person: 
   Address: 233 Lono Avenue, Suite 400
              Kahului, Maui, HI 96732
   Phone: 877-5523

3. PROPOSED CONTRACTOR FOR:
   Name: PR Drilling Company, Inc.
   Address: 235 Kelli Street
              Wahiawa, HI 96786
   Contractor's License No.: C 9627
   Phone: 622-2631

4. PROPOSED WORK
   - Drill New Well
   - Deepen
   - Alter
   - Install New Pump
   - Seal
   - Replace Pump
   - Redrill
   - Modify Pump
   - Abandon
   - Replace Pump
   - Modify Pump
   (Briefly describe the proposed work and fill in the diagram on the back of this form.)

5. PROPOSED USE
   - Municipal (including hotels, stores, etc.)
   - Domestic (individual, noncommercial water systems)
   - Irrigation (specify)
   - Military
   - Industrial
   - Other (specify)

6. PROPOSED AMOUNT OF WITHDRAWAL: Gallons per day

7. PROPOSED PUMP INFORMATION
   - Pump Type: Vertical Turbine
   - Submersible
   - Centrifugal
   - Motor: Diesel
   - Gas
   - Electric
   - Rated Horsepower:
   - Rated Pump Capacity: Gallons per minute (gpm)

Well Owner (print) ____________________________ Landowner (print) ____________________________
Signature ____________________________ Signature ____________________________
Date ____________________________ Date ____________________________

For Official Use Only:
Field Checked By ____________________________ Latitude ____________________________ Hydrologic Unit ____________________________
Date ____________________________ Longitude ____________________________ State Well No. ____________________________
Briefly describe the proposed work:

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PROPOSED SECTION OF WELL

Elevation at top of casing

Ground Elev. 10 ft., msl

Cement Grout

Solid Casing:

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Length 2 ft.

Diameter 4 in.

Wall thickness Schedule 40 in.

Rock Packing 1 ft.
(Silica sand)

Hole Dia. 10 in.

Total Depth 12 ft.

Casing: / /Perforated /Screen

Material PVC

Length 10 ft.

Diameter 4 in.

Wall thickness Schedule 40 in.

Openings

Open Hole: N/A

Length

Diameter

*Approximate elevation at time of filing application. Final elevation (msl) by a surveyor licensed by the State must be submitted at start of construction.
Locations of wells MW-50, MW-51, and MW-52
Maui Petroleum
Kahului, Maui, Hawaii

Legend:
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