LIHUE WATER SYSTEM
Well "A" (5923-01) 450 gpm
Well "B" (5923-02) 700 gpm
Well "C" (5923-03) 120 gpm
Well "D" (5923-04) 400 gpm
Well "O" (5923-05) 200 gpm
Well "I" (5923-07) 700 gpm
Garlinghouse (5823-01) 2-700 gpm

PUHL WATER SYSTEM
Well "E" (5824-03) 120 gpm
KCC Filter Plant (Puhi Tunnel) 360 gpm
KCC Deepwell (5824-07) 200 gpm
Well "D" (5824-02) Abandoned--90 gpm

LOCATION MAP
TMK: 3-4-05
Reed from Dow, 9-30-87
0.5 M.G. CONC. TANK
Overflow Elev. = 510.0
Fin. Floor Elev. = 484.0

150,000 GAL. CONC. TANK

 Overflow Elev.: 484.0
Fin. Floor Elev.: 484.0
## DRILLING LOG

**RUSCOE MOSS COMPANY**

830 AHUA STREET • HONOLULU, HAWAII 96819
TELEPHONE (808) 839-6888 • 833-1444

**FRIDAY, 1-11-80**

<table>
<thead>
<tr>
<th>Date</th>
<th>Job No.</th>
<th>Hole No.</th>
<th>Elevation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-11</td>
<td>M-24</td>
<td>E</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5824-C2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>T. Rasmussen</td>
<td>E. Ching</td>
<td></td>
<td></td>
<td>10 Hrs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rig</th>
<th>Gas</th>
<th>Repairs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bit-Size Type</th>
<th>Casing-Size in., Length in hole ft., Amt. Perforated in. ft. in.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depth Start ft., Depth Stop ft., Feet Drilled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water Levels, Time M ft., Time M ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

### Depth

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Test Pump</td>
<td>8 hr.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Took Test Eng Towell</td>
<td>2 hr.</td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:**

Test Pump 8 hr.
Took Test Eng Towell 2 hr.

**Signed:** T. Rasmussen  
**Date:** 1-11-80
Date: 1-10 1980   Job No.: 14-24   Hole No.: E   Elevation: ______ ft.

Customer: ___________________________ Location: 5824-03

Driller: TRASMUNSEN   10 Hrs.   Rig: ______
Helper: CHEING   10 Hrs.   Gas: ______   Oil: ______
Helper: ______   Hrs.   Repairs: ______

Bit-Size: ______   Type: ______
Depth Start: ______ ft., Depth Stop: ______ ft., Feet Drilled: ______
Water Levels, Time: M ______ ft., Time: M ______ ft.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>TEST PUMP 8 HR.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lay down rig stake tool and blocking on truck</td>
<td></td>
</tr>
</tbody>
</table>

Remarks: ____________________________________________

Signed: Terence Pelagius   Date: 1-10 1980
<table>
<thead>
<tr>
<th>Date</th>
<th>7-9 1980</th>
<th>Job No.</th>
<th>11-24</th>
<th>Hole No.</th>
<th>Elevation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer</td>
<td></td>
<td>Location</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Driller</td>
<td>T. Rasmussen</td>
<td>10 Hrs.</td>
<td>Rig</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helper</td>
<td>Cutting</td>
<td>10 Hrs.</td>
<td>Gas</td>
<td></td>
<td>Oil</td>
</tr>
<tr>
<td>Helper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Repairs</td>
</tr>
<tr>
<td>Arv. Job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Or. No.</td>
</tr>
<tr>
<td>Lr. Job</td>
<td>10 Hrs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Bit-Size   |          | Type    |       |          |           |
| Casing-Size| in., Length in hole | ft. | in., Amt. Perforated | ft. | in. |
| Depth Start| ft., Depth Stop | ft., Feet Drilled |       |         |           |
| Water Levels, Time | M ft., Time | M ft. |       |         |           |

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Test Pump 8 HR.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>WORK ON DISCHARGE LINE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 HR.</td>
<td></td>
</tr>
</tbody>
</table>

Remark: _________________________________

Signed: J. Rasmussen Date 7-9 1980
Date: 1-1 1980  Job No.: 77-24  Hole No. E  Elevation __________ ft.

Customer ____________________  Location ____________________

Driller: T. Rasmussen  9 Hrs.  Rig __________
Helper: C. Clating  9 Hrs.  Gas __________ Oil __________
Helper ___________________________  Hrs.  Repairs ___________________________
Arv. Job 8:00  Lv. Job 6:00  9 Hrs.

Bit-Size __________  Type __________
Casing-Size __________ in., Length in hole __________ ft. __________ in., Amt. Perforated __________ ft. __________ in.
Depth Start __________ ft., Depth Stop __________ ft., Feet Drilled __________
Water Levels, Time __________ M ft., Time __________ M ft.,

Depth  | Formation  | Remarks  | Top
--- | --- | --- | ---

| 1 | 2 | 3 | 4 |

Pickup Pipe from clock
Hang Bolts. Broke tail chime
Fix it. Ran 40 ft. of pump

Remarks: Took off tools. Bit, Steer, Jaws

Signed: T. Rasmussen  Date 1-1 1980
Date: 7-8-80  
Job No.: 71-24  
Hole No.: E  
Elevation: __ ft.  

Customer:  
Location:  

Driller: J. Rasmussen  
16 Hrs.  
Rig:  

Helper: E. C. Hing  
10 Hrs.  
Gas:  

Helper:  
Hrs.  
Oil:  
Repairs:  

Arv. Job:  
Lv. Job:  
Hrs.:  
 Or. No.:  

---

Bit-Size:  
Type:  

Casing-Size: in., Length in hole ft.  
in., Amt. Perforated ft.  
in.  

Depth Start: ft., Depth Stop: ft., Feet Drilled: __ ft.  

Water Levels, Time: M ft., Time: M ft.  

---

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>START TEST PUMP AT 9:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LEFT KEN &amp; LOPRE WENT TO WELL F, RAN PUMP 120 FT.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E. C. HING - 8:00 TO 4:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>J. (MO) - 4:00 TO 12:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>T. RASMUSSEN 12:00 TO 8:00</td>
<td></td>
</tr>
</tbody>
</table>

---

Remarks: WORK 2 Shifts 8 & 8 hr.

---

Signed: Terence Rasmussen  
Date: 7-8-80
Date: 7-3-1980  Job No.: 71-24  Hole No.: E  Elevation ______ ft.
Customer: B.U.S. Location: 5824-28

Driller: T. KAMNUSSEI  Hrs.  Rig: ______
Helper: ______  Hrs.  Gas: ______
Helper: ______  Hrs.  Oil: ______

Bit-Size  ______  Type  ______
Casing-Size  ______  in., Length in hole  ______ ft., in., Amt Perforated  ______ ft., in.
Depth Start  ______  ft., Depth Stop  ______  ft., Feet Drilled  ______
Water Levels, Time  ______ M  ft., Time  ______ M  ft.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEST WELL</td>
<td>E</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DEVELOPING WELL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SHUTDOWN AT 800</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

Signed: Jerome Farnsworth  Date: 7-3-1980
## DRILLING LOG

**RUSCOE MOSS COMPANY**

830 AHUA STREET • HONOLULU, HAWAII 96819  
TELEPHONE (808) 839-6888 • 833-1444

---

**Date:** 1-2 1980  
**Job No.:** J-24  
**Hole No.:** E  
**Elevation:** ft.  
**Location:** F301-04

---

<table>
<thead>
<tr>
<th>Customer</th>
<th>B.W.S</th>
</tr>
</thead>
</table>

---

<table>
<thead>
<tr>
<th>Driller</th>
<th>T. PASMUSSEN</th>
<th>Hrs.</th>
<th>Rig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helper</td>
<td>TRACY</td>
<td>Hrs.</td>
<td>Gas</td>
</tr>
</tbody>
</table>

---

|----------|------|---------|------|---------|

---

<table>
<thead>
<tr>
<th>Bit-Size</th>
<th>Type</th>
</tr>
</thead>
</table>

---

<table>
<thead>
<tr>
<th>Casing-Size</th>
<th>in., Length in hole</th>
<th>ft.</th>
<th>in., Amt. Perforated</th>
<th>ft.</th>
<th>in.</th>
</tr>
</thead>
</table>

---

<table>
<thead>
<tr>
<th>Depth Start</th>
<th>ft., Depth Stop</th>
<th>ft., Feet Drilled</th>
</tr>
</thead>
</table>

---

<table>
<thead>
<tr>
<th>Water Levels, Time</th>
<th>M ft., Time</th>
<th>M ft.</th>
</tr>
</thead>
</table>

---

### Measurements

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
</table>

---

### Formations

- **Test Well E**
- **Developing Well**

---

### Remarks:

---

**Signed:** James PASMUSSEN  
**Date:** 1-2 1980
Date: 7-1 1980  Job No.: 77-24  Hole No.: E  Elevation: ft.
Customer: B.W.S.  Location: 

Driller: T. Rasmussen  Hrs. Rig: 
Helper: L. Ching  Hrs. Gas: 
Helper: J. Tracy  Hrs. Repairs: 
Arv. Job:  Hrs. Or. No: 
Lv. Job:  Or. No: 

Bit-Size:  Type:  
Depth Start: ft., Depth Stop: ft., Feet Drilled:  
Water Levels, Time M ft., Time M ft. 

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TEST WELL (E)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DEVELOPING WELL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks: 

Signed: Jerome Rasmussen  Date: 7-1 1980
# DRILLING LOG

**Customer:** B. L. S

**Driller:** T. Rasmussen

**Helper:** C. Ching

**Helper:** TRACY

**Arv. Job:** 11-20-79

**Lv. Job:** 11-24-79

**Hole No.:** E

**Depth Start:** 1700 ft.

**Depth Stop:** 1900 ft.

**Feet Drilled:** 200 ft.

**Elevation:** _

<table>
<thead>
<tr>
<th>Measurements</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
</table>

- **Bit-Size:** ___________
- **Type:** ___________
- **Casing-Size:** ___________ in., Length in hole ___________ ft.
- **Amt. Perforated:** ___________ ft.
- **Water Levels, Time:** M ___________ ft., Time M ___________ ft.
- **Depth Formations:**
  - **Formation:** ___________
  - **Remarks:**
    - HELP TRACY setup ENG for test pump well
    - Went to dock to pick up pump & pipe
    - But pipe not in (START pump to) clean well

**Remarks:**

**Signed:** Thomas Rasmussen  Date: 11-30-80

**Address:**
830 AHUA STREET  HONOLULU, HAWAII 96819
TELEPHONE (808) 839-6888  833-1444
### Drilling Log

**Ruscoc Moss Company**

**830 Amua Street, Honolulu, Hawaii 96819**

**Telephone:** (808) 839-6888 • 833-1444

---

**Date:** June 2, 1980  
**Job No.:** 180E  
**Hole No.:** E  
**Elevation:** 408 ft.

**Customer:** County of Kauai  
**Location:** Puhinui 5824-0

**Driller:** Bob Barnes  
**Helper:** Richard Lopez

**Arv. Job:** 7:00  
**Lv. Job:** 4:00  
**Total Hrs.:** 9  
**Rig:** 9 Hrs.  
**Gas:** 9 Hrs.  
**Oil:**  
**Repairs:** 9 Hrs.

**Bit-Size:** 12  
**Type:** STAR

**Casing-Size:** 12 in., Length in hole: 15 ft.  
**Amt. Perforated:** ft., in.

**Depth Start:** 195 ft.  
**Depth Stop:** 200 ft.  
**Feet Drilled:** 5

**Water Levels, Time:** M ft., Time: M ft.

---

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>195</td>
<td>Red Clay Mixed with Blue Rock</td>
<td>7:30 SSL = SAME</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Measurements**

**Remarks:** Build up bit recessively

---

**Signed:** Bobby L. Barnes  
**Date:** June 2, 1980
Date: **30 May 1980**
Job No.: **1-80E**
Hole No.: **“E”**
Elevation: **408 ft.**
Customer: **County of Kauai**
Location: **Puhi 5929-00**

Driller: **Bob Barnes**
9 Hrs.
Rig

Helper: **Richard Lopez**
9 Hrs.
Gas

Helper:

Arv. Job: **7:00**
Lv. Job: **4:00**
9 Hrs.

Bit-Size: **12**
Type: **STAR**

Casing-Size: **12** in., Length in hole: **15** ft. in.

Depth Start: **190** ft., Depth Stop: **195** ft., Feet Drilled: **5**

Water Levels, Time: **M** ft., Time: **M** ft.

Remarks: **Build up bit frequently.**

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Tap</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>Hard Basalt</td>
<td>7:30 SWL = 63’6”</td>
<td></td>
</tr>
</tbody>
</table>
# Drilling Log

**Date:** 29 May 1980  
**Job No.:** 1-80E  
**Hole No.:** E  
**Elevation:** 408 ft.

**Customer:** County of Kauai  
**Location:** Puhi

<table>
<thead>
<tr>
<th>Driller</th>
<th>9 Hrs.</th>
<th>Rig</th>
<th>Helper</th>
<th>9 Hrs.</th>
<th>Gas</th>
<th>Oil</th>
<th>Helper</th>
<th>9 Hrs.</th>
<th>Repairs</th>
<th>Av. Job</th>
<th>L. Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob Barnes</td>
<td></td>
<td></td>
<td>Richard Lopez</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7:00</td>
<td>4:00</td>
</tr>
</tbody>
</table>

**Bit-Size:** 12 in.  
**Type:** STAR

**Casing-Size:** 12 in.  
**Length in hole:** 15 ft.  
**Amt. Perforated:** ft. in.

**Depth Start:** 186 ft.  
**Depth Stop:** 190 ft.  
**Feet Drilled:** 4

**Water Levels, Time:** M ft., Time M ft.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formations</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>186</td>
<td>Hard Basalt</td>
<td>7:00</td>
<td>SWL = 63'</td>
</tr>
<tr>
<td>190</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:** Build up bit frequently

**Signed:** Bobby L. Barnes  
**Date:** 29 May 1980
Date: 28 May 1980, Job No.: 1-80E, Hole No.: "E"
Elevation: 408 ft.

Customer: County of Kauai
Location: Pahi

Driller: Bob Barnes
9 Hrs. Rig
9 Hrs. Gas
9 Hrs. Oil

Helper: Richard Lopez
9 Hrs. Repairs

Arv. Job: 7:00, Lv. Job: 4:00, 9 Hrs.

Bit-Size: 12 in., Type: STAR

Casing-Size: 12 in., Length in hole: \( \_ \_ \_ ft. \_ \_ \_ in. \), Amt. Perforated: \( \_ \_ \_ ft. \_ \_ \_ in. \)

Depth Start: 185 ft., Depth Stop: 186 ft., Feet Drilled: 1

Water Levels, Time: \( \_ \_ \_ ft., Time: \_ \_ \_ ft. \_ \_ \_ ft. \_ \_ \_ ft. \)

Depth | Formation | Remarks | Top A | B
---|---|---|---|---
185 | Very hard Basalt | 7:30 SWL = 63' 6" |   | |
186 |   |   |   | |

Remarks: Build up bit hourly. Rain most all day.

Signed: Bobby L. Barnes, Date: 28 May 1980
Date: 27 May 1980  
Job No.: 1-80E  
Hole No.: "E"  
Elevation: 408 ft.

Customer:  
Location: Puhi 82040  

Driller: Bob Barnes  
9 Hrs. Rig  

Helper: Richard Lopez  
9 Hrs. Gas  

Arv. Job: 7:00  
Lv. Job: 4:00  
9 Hrs. Oil  

Bit-Size:  
Type: STAR  

Casing-Size:  
in., Length in hole:  
15 ft.  

Depth Start: 153 ft., Depth Stop: 155 ft., Feet Drilled: 2  

Water Levels, Time M ft., Time M ft.  

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>193</td>
<td>Very hard Basalt</td>
<td>7:30 5WHA = 63° 6'</td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Build up bit hourly

Signed: Bobby L. Barnes  
Date: 27 May 1980
Date: 23 May 1980
Job No.: 1-80E
Hole No.: "E"
Elevation: 408 ft.

Customer: County of Kauai
Location: Pili

Driller: Bob Barnes
9 Hrs.
Rig

Helper: Richard Lopez
9 Hrs.
Gas
Oil

Helper

Arv. Job: 7:00
Lv. Job: 4:00
9 Hrs.
Repaired

Bit Size: 12
Type: STAR

Casing Size: 12 in.
Length in hole: 15 ft.
Amt. Perforated: ft.

Depth Start: 180 ft.
Depth Stop: ft.
Feet Drilled: ft.

Water Levels, Time: M ft.


<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>140</td>
<td>HARD BASALT</td>
<td>7'30 SWL = 63'9&quot;</td>
<td></td>
</tr>
<tr>
<td>133</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Build up bit frequently. Ran New Roper socket

Signed by: Bobby L. Barnes
Date: 23 May 1980
**Drilling Log**

**RUSCOE MOSS COMPANY**

830 AHUA STREET • HONOLULU, HAWAII 96819
TELEPHONE (808) 839-6888 • 833-1444

---

**Date:** 22 May 1980  
**Job No.:** 1-80E  
**Hole No.:** F  
**Elevation:** 408 ft.  
**Customer:** County of Kauai  
**Location:** Puhi

<table>
<thead>
<tr>
<th>Driller</th>
<th>Bob Barnes</th>
<th>9 Hrs.</th>
<th>Rig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helper</td>
<td>Richard Lopez</td>
<td>9 Hrs.</td>
<td>Gas</td>
</tr>
<tr>
<td>Arv. Job</td>
<td>7:00</td>
<td>4:00</td>
<td>9 Hrs.</td>
</tr>
</tbody>
</table>

**Bit-Size:** 12 in.  
**Type:** STAR  
**Casing-Size:** 12 in., Length in hole 15 ft.  
**Depth Start:** 160 ft., Depth Stop 180 ft.  
**Feet Drilled:** 20  
**Water Levels, Time M ft, Time:**  

---

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>160</td>
<td>Medium hard basalt mixed with clay and gravel</td>
<td>SWL = 63'8 7:30</td>
<td></td>
</tr>
</tbody>
</table>

---

**Remarks:** Build up bit occasionally

---

**Signed:** Bobby L. Barnes  
**Date:** 22 May 1980
**DRILLING LOG**

**RUSCOE MOSS COMPANY**

830 AMUA STREET • HONOLULU, HAWAII 96819
TELEPHONE (808) 839-6888 • 833-1444

---

Date: **21 May 1980**  
Job No.: **1-80E**  
Hole No.: **E**  
Elevation: **408 ft.**  
Customer: **County of Kauai**  
Location: **Pahi section**

---

**Driller:** Bob Barnes  
**Helper:** Richard Lopez

**Rig:**  
**Gas:** Oil

**Arv. Job:** 7:00  
**Lv. Job:** 4:00  
**9 Hrs. Repairs:**

**Bit-Size:** 12  
**Type:** STAR

**Casing-Size:** 12 in., Length in hole: 15 ft.  
**in., Amt. Perforated:** ft. in.

**Depth Start:** 145 ft., Depth Stop: 160 ft.,  
**Feet Drilled:** 15

**Water Levels, Time:** M ft., Time: M ft.

---

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>145</td>
<td>Med hard Basalt</td>
<td>7:30 OWL = 63 8&quot;</td>
<td></td>
</tr>
<tr>
<td>160</td>
<td>mixed with red cinder</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:** Build bit occasionally

---

**Signed:** Bobby L. Barnes  
**Date:** 21 May 1980
**Date**: 20 May 1980  
**Job No.**: 1-80E  
**Hole No.**: "E"  
**Elevation**: 408 ft.

**Customer**: County of Kauai  
**Location**: Pahi

**Driller**: Bob Barnes  
**Helper**: Richard Lopez  
**Arv. Job**: 7:00  
**Lv. Job**: 4:00  
**Hrs.**: 9

**Bit-Size**: 12 in.  
**Type**: STAR

**Casing-Size**: 12 in., Length in hole: 15 ft.  
**Depth Start**: 140 ft., Depth Stop: 145 ft.  
**Feet Drilled**: 5

**Remarks**: Build up bit frequently

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>140</td>
<td>Medium Hard Basalt</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>mixed with clay</td>
<td></td>
<td>7:30</td>
</tr>
<tr>
<td>145</td>
<td></td>
<td>SWL = 63.6&quot;</td>
<td></td>
</tr>
</tbody>
</table>

**Signed**: Bobby L. Barnes  
**Date**: 20 May 1980
Date: 19 May 1980  
Job No.: 180E  
Hole No.: "E"  
Elevation: 408 ft.

Customer: County of Kauai  
Location: Pahi

Driller: Bob Barnes  
9 Hrs.  
Rig:  

Helper: Richard Lopez  
9 Hrs.  
Gas:  
Oil:  

Arv. Job: 7:00  
Lv. Job: 4:00  
9 Hrs.  
Hours:  
Repairs:  

Bit-Size: 12 in.  
Type: STAR  

Casing-Size: 13 in., Length in hole: 16 ft.  
Amt. Perforated: ft. in.  

Depth Start: 134 ft., Depth Stop: 140 ft., Feet Drilled: 6

Water Levels, Time: M ft., Time: M ft.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>134 ft.</td>
<td>medium Hard Basalt mixed with some clay</td>
<td>7:30</td>
<td>SWL = 63'5&quot;</td>
</tr>
</tbody>
</table>

Remarks: Build up bit occasionally

Signed: Bobby Barnes  
Date: 19 May 1980
<table>
<thead>
<tr>
<th>Date</th>
<th>Job No.</th>
<th>Hole No.</th>
<th>Elevation</th>
<th>Customer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 May 1980</td>
<td>1-80E</td>
<td>&quot;E&quot;</td>
<td>408 ft</td>
<td>County of Kauai</td>
<td>Pahi</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Driller</th>
<th>Helper</th>
<th>Hours</th>
<th>Rig</th>
<th>Helper</th>
<th>Hours</th>
<th>Repairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob Barnes</td>
<td>Richard Lopez</td>
<td>9</td>
<td>Gas</td>
<td></td>
<td>9</td>
<td>Oil</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00</td>
<td>4:00</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bit-Size</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>STAB</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Casing-Size</th>
<th>Length in hole</th>
<th>Amt. Perforated</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 1/2 in.</td>
<td>15 ft.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>129-130</td>
<td>Very Hard Basalt</td>
<td>7.30 SWL = 64 ft</td>
<td></td>
</tr>
<tr>
<td>130-134</td>
<td>Medium Hard Basalt</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Bit bit back on after reworking bottom of bit and start drilling. Deadmen still moving after night rains. Only off 1/4 in. Deadmen starting to stabilize.

Signed: Bob L. Barnes  Date: 16 May 1980
DRILLING LOG

Date: 15 May 1980
Job No.: 180E
Hole No.: "E"
Elevation: 408 ft
Customer: County of Kauai
Location: Pali 5824-03

Driller: Bob Barnes
Hrs.: 9
Rig: Gas

Helper: Richard Lopez
Hrs.: 9
Oil

Helper:
Hrs.: Repairs

Arv. Job: 7:00
Lv. Job: 4:00
9 Hrs.

Bit Size: 12
Type: STAR

Casing Size: 12 in.
Length in hole: 15 ft.
Amt. Perforated: ft.
in

Depth Start: 124 ft.
Depth Stop: 129 ft.
Feet Drilled: 1

Water Levels, Time: M ft.

Remarks:

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>124</td>
<td>Very hard Basalt</td>
<td>7:30 SWL = 64 ft.</td>
<td></td>
</tr>
<tr>
<td>129</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Measurements

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
</table>

Remarks: Had to take off bit to rework bottom of bit. Deadmen loosened up due to rain. Rain lots during the night.

Signed: Bobby L. Barnes
Date: 15 May 1980
**Ruscoe Moss Company**

**Drilling Log**

830 Ahua Street * Honolulu Hawaii 96819
Telephone 808 839-6988 * 833-1444

---

**Date:** 14 May 1980  
**Job No.:** 1-80E  
**Hole No.:** "E"  
**Elevation:** 408 ft.

**Customer:** County of Kauai  
**Location:** Puhi

**Driller:** Bob Barnes  
**9 Hrs.** Rig

**Helper:** Richard Lopez  
**9 Hrs.** Gas, Oil

**Arv. Job:** 7:00  
**Lv. Job:** 4:00  
**9 Hrs.** Repairs

---

**Bit-Size:** 12  
**Type:** STAR

**Casing-Size:** 12 in., Length in hole 15 ft.  
**In., Amt. Perforated:** ft. in.

**Depth Start:** 12 ft.  
**Depth Stop:** 128 ft., Feet Drilled 1

**Water Levels, Time:** M ft., Time M ft.

---

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>127</td>
<td>Hard Basalt</td>
<td>7:30 SWL = 6457</td>
<td></td>
</tr>
</tbody>
</table>

---

**Remarks:** Build up bit frequently. Had to rework deadmen in cane field.

---

**Signed:** Bobby L Barnes  
**Date:** 14 May 1980
Date: 13 May 1980  
Job No.: I-90E  
Hole No.: "E"  
Elevation: 408 ft.

Customer: County of Kauai  
Location: Pahi

Driller: Bob Barnes  
9 Hrs. Rig: 
Helper: Richard Lopez  
9 Hrs. Gas:  
Oil:  
Repairs:  
Arv. Job: 7:00  
Lv. Job: 4:00  
9 Hrs. Or. No.: 

Bit-Size: 12  
Type: STAR

Casing-Size: 12 in.  
Length in hole: 15 ft.  
Amt. Perforated:  
In.

Depth Start: 125 ft.  
Depth Stop:  
Feet Drilled: 

Water Levels: Time M ft. Time M ft.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>125 ft.</td>
<td>Hard Basalt</td>
<td>7:30 SWL = 64 ft</td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Build up bit very frequently. Having trouble with deadmen. Have to reset & realign.

Signed: Bobby L. Barnes  
Date: 13 May 1980
Date: 12 May 1980  
Job No.: 1-80E  
Hole No.: E  
Elevation: 408 ft.

Customer: County of Kauai  
Location: Kauai

Driller: Bob Barnes  
Helper: Richard Lopez

Arrv. Job: 7:00  
Lv. Job: 4:00

Bit-Size: 12  
Type: STAR

Casing-Size: 12 in.  
Length in hole: 15 ft.

Depth: 121 ft.  
Depth Stop: 125 ft.

Feet Drilled: 4

Water Levels: Time M ft., Time M ft.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>121</td>
<td>Med Hard Basalt</td>
<td>SWL = 64 ft</td>
<td>7:00</td>
</tr>
<tr>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Build bit frequently. Went to get equipment at the dock.

Signed: Bobby L. Barnes  
Date: 12 May 1980
DRILLING LOG

Date: 9 May 1980  Job No.: 1-80E  Hole No.: "E"  Elevation: 408 ft.

<table>
<thead>
<tr>
<th>Customer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>County of Kauai</td>
<td>Puhi</td>
</tr>
</tbody>
</table>

Driller: Bob Barnes  Helper: Richard Lopez

<table>
<thead>
<tr>
<th>Arv. Job</th>
<th>Lv. Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00</td>
<td>3:00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rig</th>
<th>Gas</th>
<th>Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Repairs</th>
<th>Or. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bit-Size</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>STAR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Casing-Size</th>
<th>Length in hole</th>
<th>Amnt. Perforated</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 in.</td>
<td>15 ft.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depth Start</th>
<th>Depth Stop</th>
<th>Feet Drilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>117 ft.</td>
<td>121 ft.</td>
<td>4</td>
</tr>
</tbody>
</table>

Water Levels, Time: M ft., Time: M ft.

<table>
<thead>
<tr>
<th>Measurements</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>117</td>
<td>Medium Hard Basalt</td>
<td>7:30 SWL = 64 ft</td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Build up bit frequently

Signed: Bobby L. Barnes  Date: 9 May 1980
DRILLING LOG

Date: 8 May 1980
Job No.: 180E
Hole No.: "E"
Elevation: 408 ft.

Customer: County of Kauai
Location: Pahi 5884-03

Driller: Bob Barnes
Helper: Richard Lopez

Arv. Job: 7:00
Lv. Job: 3:00

Drilling Log:

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>112</td>
<td>Medium Hard Basalt</td>
<td>7:30 SWL = 64 ft</td>
<td></td>
</tr>
</tbody>
</table>

Water Levels:

<table>
<thead>
<tr>
<th>Depth</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>ft.</td>
</tr>
</tbody>
</table>

Measurements:

<table>
<thead>
<tr>
<th>Bit-Size</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>STAR</td>
</tr>
</tbody>
</table>

Casing-Size: 12 in., Length in hole: 15 ft.
Depth Start: 112 ft., Depth Stop: 117 ft., Feet Drilled: 5

Remarks:
Build up bit frequently

Signed: Bobby L. Barnes
Date: 8 May 1980
Date 7 May 1980  Job No. 1-80E  Hole No. "E"  Elevation 408 ft.
Customer County of Kauai  Location Puh 5867

Driller Bob Barnes  10 Hrs.  Rig
Helper Richard Lopez  10 Hrs.  Gas  Oil

Arv. Job 7:00  Lv. Job 5:00  10 Hrs.  Or. No.

Bit-Size  12  Type  STAR
Casing-Size  12 in., Length in hole 15 ft.  in., Amt. Perforated  ft.  in.

Depth Start 107 ft., Depth Stop 112 ft., Feet Drilled 5
Water Levels, Time M ft., Time M ft.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>107</td>
<td>Medium Hard BASALT</td>
<td>7:30 SWL = 64 FT</td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Build up bit frequently. Ran the rope slack.

Signed Lathy L. Barnes  Date 7 May 1980
Date: 6 May 1980   Job No.: 180E   Hole No.: E   Elevation: 408 ft.
Customer: County of Kauai   Location: Puhi

Driller: Bob Barnes   10 Hrs.   Rig:
Helper: Richard Lopez   10 Hrs.   Gas: Oil
Arv. Job: 7:00   Lv. Job: 5:00   10 Hrs.

Bit-Size: 12   Type: STAR
Depth Start: 105 ft., Depth Stop: 107 ft., Feet Drilled: 2

Water Levels, Time: M ft., Time: M ft.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>105</td>
<td>Very Hard Basalt</td>
<td>7:30</td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Build up bit every 45 - 60 min.

Signed: Bobby L. Barnes   Date: 6 May 1980
Date: 5 May 1980  
Job No.: 1-90E  
Hole No.: E  
Elevation: 408 ft.

Customer: County of Kauai  
Location: Puihi

Driller: Bob Barnes  
Helper: Richard Lopez  

<table>
<thead>
<tr>
<th>Rig</th>
<th>Gas</th>
<th>Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Helper:  

<table>
<thead>
<tr>
<th>Hrs.</th>
<th>Repairs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Arv. Job: 7:00  
Lv. Job: 5:00  

<table>
<thead>
<tr>
<th>10 Hrs.</th>
<th>Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bit-Size: 12 in.  
Type: STAR

Casing-Size: 12 in.  
Length in hole: 15 ft.  
Amt. Perforated: 

Depth Start: 100 ft.  
Depth Stop: 105 ft.  
Feet Drilled: 5

Water Levels, Time: M ft., Time: M ft.

<table>
<thead>
<tr>
<th>Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medium hard BASALT</td>
<td>7:30 SWL = 64 ft</td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Snehen over weekend: 2 shovels + CATLINE ROPE  
Build up bit frequently

Signed: Bobby L Barnes  
Date: 5 May 1980
Date: 2 May 1980
Job No.: 1-80E
Hole No.: E
Elevation: 408 ft.
Customer: County of Kauai
Location: Pubi

Driller: Bob Barnes
10 Hrs.
Rig:
Helper: Richard Lopez
10 Hrs.
Gas:
Helper:
Hrs.
Oil:
Arv. Job: 7:00
Lv. Job: 5:00
10 Hrs.

Bit-Size: 12
Type: STAR

Casing-Size: 12 in., Length in hole: 15 ft.
in.
Depth Start: 93 ft., Depth Stop: 100 ft., Feet Drilled: 7

Water Levels, Time M ft., Time M ft.,

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>93</td>
<td>Medium Hard Basalt</td>
<td>7:30 SWL = 64</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Build on bit frequently

Signed: Bob Barnes
Date: 2 May 1980
### DRILLING LOG

**Date:** 1 May 1980  
**Job No.:** 1-80E  
**Hole No.:** E  
**Elevation:** 408 ft.

**Customer:** County of Kauai  
**Location:**

**Driller:** Bob Barnes  
**Helper:** Richard Lopez

<table>
<thead>
<tr>
<th>Hrs.</th>
<th>Rig</th>
<th>Gas</th>
<th>Oil</th>
<th>Repairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Arv. Job:** 7:00  
**Lv. Job:** 5:00  
**10 Hrs.**

**Bit-Size:** 12  
**Type:** AF-STAR

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td></td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Depth Start:** 90 ft.  
**Depth Stop:** 93 ft.  
**Feet Drilled:** 3 ft.

**Water Levels, Time:** M ft., Time M ft.

<table>
<thead>
<tr>
<th>Depth Stop</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>90/93</td>
<td>Hard Basalt</td>
<td>7:30 SWL = 64 ft</td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:**
- Talk with A.P.C.O.'s Alan Smith gave the OK to run excess mud & cuttings across road into collapsed tunnel/ditch. Build up bit frequently.

**Signed:** Bobby L. Barnes  
**Date:** 1 May 1980
Date: 30 April 1980  
Job No.: 1-90E  
Hole No.: "E"  
Elevation: 408 ft.

Customer: County of Kauai  
Location: Puhia

Driller: Bob Barnes  
Helper: Richard Lopez

Arv. Job: 7:00  
Lv. Job: 5:00  
Or. No.: ___________  
Hrs.: ___________  
Gas: ___________  
Oil: ___________

Bit-Size: 12  
Type: STAR

Casing-Size: 4  
in., Length in hole: 15 ft.  
Amm. Perforated: ft.  
Depth Start: 85 ft.  
Depth Stop: 90 ft.  
Feet Drilled: 5

Water Levels, Time: M ft.  
Measurement: M ft.

Depth  
Formation: Medium Hard Basalt  
Remarks: SWL = 63' 8" 7:00

Signed: Bobby L. Barnes  
Date: 30 April 1980
Date: 29 April 1980  
Job No: 1-80E  
Hole No: "E"  
Elevation: 408 ft.

Customer: County of Kauai  
Location: Pub. 5-91-00

Driller: Bob Barnes  
Gas:  
Hrs.: 10

Helper: Richard Lopez  
Oil:  
Hrs.: 10

Arv. Job: 7:00  
Lv. Job: 5:00  
Hrs.: 10  
Repairs:

Bit-Size: 12  
Type: STC

Casing-Size: 12 in.  
Length in hole: 15 ft.  
In., Amt. Perforated: ft. in.

Depth Start: 84 ft.  
Depth Stop: 85 ft.  
Feet Drilled: 1

Water Levels, Time: M ft., Time: M ft.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>84/85</td>
<td>Very hard RATAI</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Build up bit every 30-45 min.

Signed: Bobby L Barnes  
Date: 29 April 1980
## DRILLING LOG

**Customer:** County of Kauai  
**Location:** Pili  
**Date:** 28 April 1980  
**Driller:** Bob Barnes  
**Helper:** Richard Lopez  
**Job No.:** 180  
**Hole No.:** E  
**Elevation:** 405 ft.

<table>
<thead>
<tr>
<th>Driller</th>
<th>Helper</th>
<th>Arv. Job</th>
<th>Rig</th>
<th>Hrs. Gas</th>
<th>Hrs. Oil</th>
<th>Hrs. Repairs</th>
<th>Or. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob Barnes</td>
<td></td>
<td>7:15</td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>lv. Job 5:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Depth and Formation

<table>
<thead>
<tr>
<th>Depth Start</th>
<th>Depth Stop</th>
<th>Feet Drilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>82 ft.</td>
<td>84 ft.</td>
<td>2</td>
</tr>
</tbody>
</table>

### Water Levels

- Water levels: Time  
- Measurements

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<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>82</td>
<td>Hard Blue Rock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>84</td>
<td></td>
<td>S.W.L. = 64 ft</td>
<td></td>
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</tbody>
</table>

**Remarks:** Build up bit every 30 - 45 minutes

Signed: Bobly L Barnes  
Date: 28 April 1980
<table>
<thead>
<tr>
<th>Date</th>
<th>25 April 1980</th>
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</thead>
<tbody>
<tr>
<td>Customer</td>
<td>County of Kauai</td>
</tr>
<tr>
<td>Job No.</td>
<td>1-80-E</td>
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<tr>
<td>Hole No.</td>
<td>&quot;E&quot;</td>
</tr>
<tr>
<td>Elevation</td>
<td>408</td>
</tr>
<tr>
<td>Location</td>
<td>Puhii</td>
</tr>
<tr>
<td>Driller</td>
<td>Bob Barnes</td>
</tr>
<tr>
<td>Helper</td>
<td>Richard Lopez</td>
</tr>
<tr>
<td>Arv. Job</td>
<td>$7.00</td>
</tr>
<tr>
<td>Lw. Job</td>
<td>5.00</td>
</tr>
<tr>
<td>Hrs.</td>
<td>10 Hrs.</td>
</tr>
<tr>
<td>Rig</td>
<td>Rig</td>
</tr>
<tr>
<td>Gas</td>
<td>Gas</td>
</tr>
<tr>
<td>Oil</td>
<td>Oil</td>
</tr>
<tr>
<td>Repairs</td>
<td>Repairs</td>
</tr>
<tr>
<td>Bit-Size</td>
<td>12</td>
</tr>
<tr>
<td>Type</td>
<td>TRIDENT</td>
</tr>
<tr>
<td>Casing-Size</td>
<td>12 in.</td>
</tr>
<tr>
<td>Length</td>
<td>15 ft.</td>
</tr>
<tr>
<td>Amt. Perforated</td>
<td>ft.</td>
</tr>
<tr>
<td>Depth Start</td>
<td>80 ft.</td>
</tr>
<tr>
<td>Depth Stop</td>
<td>82 ft.</td>
</tr>
<tr>
<td>Feet Drilled</td>
<td>2</td>
</tr>
<tr>
<td>Water Levels</td>
<td>M ft.</td>
</tr>
<tr>
<td>Time</td>
<td>M ft.</td>
</tr>
<tr>
<td>Remarks</td>
<td>Caved in 8 ft overnight</td>
</tr>
<tr>
<td>Measurements</td>
<td>A</td>
</tr>
<tr>
<td>Depth</td>
<td>80/82</td>
</tr>
<tr>
<td>Formation</td>
<td>Hard Blue Rock</td>
</tr>
<tr>
<td>Remarks</td>
<td>&quot;Finished building up Star bit, Changed bits back&quot;</td>
</tr>
<tr>
<td>Bobby L Barnes</td>
<td>Date 25 April 1980</td>
</tr>
</tbody>
</table>
**RUSCOE MOSS COMPANY**

**DRILLING LOG**

- **Date:** 24 April 1980
- **Customer:** County of Kaua'i
- **Job No.:** 1-80E
- **Hole No.:** 408
- **Location:** Kaua'i
- **Elevation:** 408

<table>
<thead>
<tr>
<th>Arv. Job</th>
<th>Lv. Job</th>
<th>10 Hrs.</th>
<th>16 Hrs.</th>
<th>Rib</th>
<th>Location</th>
<th>Elevation</th>
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<tbody>
<tr>
<td>7.00</td>
<td>5.00</td>
<td>10 Hrs.</td>
<td>16 Hrs.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Bris-Size:** 12
- **Casing-Size:** 12
- **Depth Start:** 77
- **Water Levels, Time:** M 80 ft., Depth Stop 80 ft., Feet Drilled 3

**Formation**

<table>
<thead>
<tr>
<th>Depth</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td>77</td>
<td>Hard Blue Rock, CAVED IN 6 FT. OVERNIGHT</td>
</tr>
<tr>
<td>80</td>
<td></td>
</tr>
</tbody>
</table>

**Measurements**

<table>
<thead>
<tr>
<th>Top A</th>
<th>Top B</th>
</tr>
</thead>
</table>

**Remarks**

- Cut on Trident bit, started working on Star bit.

**Signature:** [Signature]

**Date:** 25 April 1980
Date: 23 April 1980  
Job No.: I-80E  
Hole No.: "E"  
Elevation: 408 ft.

Customer: County of Kauai  
Location: 

Driller: Bob Barnes  
10 Hrs. Rig: 

Helper: Richard Lopez  
10 Hrs. Gas: Oil: 

Helper: 

Arv. Job: 7:00  
Lv. Job: 5:00  
10 Hrs. Or. No.: 

Bit-Size: 12  
Type: Star 


Depth Start: 70 ft., Depth Stop: 77 ft., Feet Drilled: 7 


Remarks: Changed Jars. Repair Mud dump 3 1/2 hrs. Weld bit frequently. 

Signed: Bobby J. Barnes  
Date: 24 April 1980
## DRILLING LOG

**RUSCOE MOSS COMPANY**

830 AHUA STREET • HONOLULU, HAWAII 96819
TELEPHONE (808) 839-6888 • 833-1444

**Date:** 23 April 1980  **Job No.:** J-80E  **Hole No.:** “E”  **Elevation:** 408 ft.

**Customer:** County of Kauai  **Location:** Pahi

**Driller:** Bob Barnes  **10 Hrs. Rig:**

**Helper:** Richard Lopez  **10 Hrs. Gas:** Oil

**Helper:**  **Hrs. Repairs:**

**Arv. Job:** 7:00  **Lv. Job:** 5:00  **10 Hrs.**

---

**Bit-Size:** 12  **Type:** STAR

**Casing-Size:** in., Length in hole ft., Amt. Perforated ft. in.

**Depth Start:** 58 ft., Depth Stop 70 ft., Feet Drilled 12

**Water Levels, Time:** M ft., Time M ft.

### Measurements

<table>
<thead>
<tr>
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<th>Formation</th>
<th>Remarks</th>
<th>Tap</th>
</tr>
</thead>
<tbody>
<tr>
<td>58</td>
<td>Redish Brown Clay</td>
<td>Caved in approximately 10-12 ft. Hole making some water</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>with Sand &amp; gravel Mixture</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:** Reroo depot. They keep pulling out of soft cane field. It is raining on and off most of the day.

**Signed:** Bobby L. Barnes  **Date:** 23 April 1980
**DRILLING LOG**

**RUSCOE MOSS COMPANY**

630 AHUAI STREET • HONOLULU, HAWAII 96819
TELEPHONE (808) 839-6888 • 833-1444

---

**Date:** 22 April 1980  
**Job No.:** 1-80-E  
**Hole No.:** "E"  
**Elevation:** 408 ft.

**Customer:** County of Kauai  
**Location:** Puhu

**Driller:** Bob Barnes  
**10 Hrs. Rig:**  
**Helper:** Richard Lopez  
**10 Hrs. Gas:**  
**10 Hrs. Oil:**  
**10 Hrs. Repairs:**

**Arr. Job:** 7:00  
**Lv. Job:** 5:00  
**10 Hrs. Or. No.:**

**Bit-Size:** 12  
**Type:** Star

**Casing-Size:** 12 in., **Length in hole:** 15 ft.  
**in., Amt. Perforated:** ft. in.

**Depth Start:** 48 ft., **Depth Stop:** 58 ft., **Feet Drilled:** 10

**Water Levels, Time M ft., Time M ft.**

---

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
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</thead>
<tbody>
<tr>
<td>48</td>
<td>Red clay mixed with gravel</td>
<td>Caved in approximately 10 ft over the weekend</td>
<td></td>
</tr>
<tr>
<td>58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Measurements**

**Signed:** Bobly J. Barnes  
**Date:** 22 April 1980

**Remarks:** Finish building doghouse with leftover materials  
Also unloaded welded toolbox.
**Date:** 18 April, 1980  
**Job No.:** 1-80-E  
**Hole No.:** E  
**Elevation:** ft.

**Customer:** County of Kauai  
**Location:** 5804-01

**Driller:** Bob Barnes  
**Helper:** Richard Lopez  
**Arv. Job:** 7:00  
**Lv. Job:** 5:00  
**10 Hrs.**

**Bit-Size:** 12  
**Type:** STAR

**Casing-Size:** in., Length in hole ft.  
**Amt. Perforated:** ft.  
**Depth Start:** 22 ft.  
**Depth Stop:** 48 ft.  
**Feet Drilled:** 26

**Water Levels, Time:** M ft., Time: M ft.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>22/48</td>
<td>Red Clay + Gravel mixed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:** Built deck to work on Starton dog house.

**Signed:** Bobby L. Barnes  
**Date:** 18 April, 1980
**DRILLING LOG**

**RUSCOE MOSS COMPANY**

830 AHUA STREET • HONOLULU, HAWAII 96819
TELEPHONE (808) 839-6888 • 833-1444

**Date:** 17 April, 1980  
**Job No.:** 1-80-E  
**Hole No.:** E  
**Elevation:** ft.

**Customer:** County of Kauai  
**Location:**

---

**Driller:** Bob Barnes  
**Rig:**

**Helper:** Richard Lopez  
**Gas:**

**Helper:**

**Hrs. Repairs:**

**Arv. Job:** 7:00  
**Lv. Job:** 5:00  
**10 Hrs.**

**Bit-Size:** 12  
**Type:** STAR

**Casing-Size:** 12 in.  
**Length in hole:** ft.  
**In., Amt. Perforated:** ft.  
**in.**

**Depth Start:** ft.  
**Depth Stop:** ft.  
**Feet Drilled:**

**Water Levels, Time:** M ft., Time M ft.

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<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>Red Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td></td>
<td>VERY STICKY</td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:**

Drill very slowly to get hole to tighten tool joints.  
Went to LIBUE PLANTATION to get scrap metal bars for deadmen.  
Paid cash $17.00

**Signed:** Bobby L. Barnes  
**Date:** 17 April, 1980
Date: 16 April 1980  
Job No.: 1-80-E  
Hole No.: E  
Elevation: ______ ft.

Customer: COUNTY OF KAUAI  
Location: ______

Driller: Bob Barnes  
6 Hrs.  
Rig: ______

Helper: Richard Lopez  
6 Hrs.  
Gas: ______  
Oil: ______

Helper: ______  
Hrs.  
Repairs: ______

Arv. Job: 7:00  
Lv. Job: 1:00  
6 Hrs.  
Or. No.: ______

Bit-Size: ______  
Type: ______

Casing-Size: ______ in., Length in hole: ______ ft.  
Amt. Perforated: ______ ft.  
in.

Depth Start: ______ ft., Depth Stop: ______ ft.  
Feet Drilled: ______

Water Levels, Time: M ______ ft., Time: M ______ ft.  
Measurements:

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
</table>

Depth  
Formation  
Remarks  
Top

Remarks: Rained off & on all day, gave up and went home at 1:00  
Did finishing touches to setting up between showers

Signed: Bobby L. Barnes  
Date: 16 April 1980
Date: 15 April 1980  
Job No.: 1-X0-E  
Hole No.: E  
Elevation:  
ft.

Customer: County of Hawaii  
Location: Kailua 5-4-0

Driller: Bob Barnes  
10 Hrs.  
Rig:

Helper: Richard Lopez  
10 Hrs.  
Gas:

Helper:

Hrs.  
Repairs:

Arv. Job: 7:00  
Lv. Job: 5:00  
10 Hrs.  
Or. No.:

Bit-Size  
Type:

Casing-Size:
in., Length in hole: ft. in., Amt. Perforated: ft. in.

Depth Start: ft., Depth Stop: ft., Feet Drilled:

Water Levels, Time M: ft., Time M: ft.:

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
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</tbody>
</table>

Remarks: Finish setting up first coupler tank & build scaffolding  
for tank. Set extra mud. Want to see plantation about mobile  
and man in corn 1-12-22

Signed: Bobby K. Barnes  
Date: 15 April 1980
Date: 14 April 1980
Job No: 190-E
Hole No: E
Customer: County of Kauai
Location:

Driller: Bob Barnes
Helper: Richard Lopez
Arv. Job: 7:00
L.V. Job: 5:00

10 Hrs. 10 Hrs.
Rig: Gas:

10 Hrs.
Repairs:

Bit-Size
Type:

Casing-Size in., Length in hole ft.
Amt. Perforated ft. in.

Depth Start ft., Depth Stop ft., Feet Drilled

Water Levels, Time M ft., Time M ft.

Measurements

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
</tr>
</thead>
</table>

Remarks: Move Rig + Equipment from Port to Job site. Started setting up machine.

Signed: Bobby L. Barnes
Date: 14 April 1980
October 19, 1990

Mr. Bruce Anderson
Department of Health
P. O. Box 3378
Honolulu, HI 96801


In order to lessen the confusion of well facilities identification, effective immediately, the following Department of Water's well facilities will be renamed as follows:

<table>
<thead>
<tr>
<th>State Well No.</th>
<th>Old Well Name</th>
<th>New Well Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>0623-04</td>
<td>Makaleha Well A</td>
<td>Kapaa Homesteads Well 1</td>
</tr>
<tr>
<td>5824-01</td>
<td>Kauai Community College Well</td>
<td>Puhi Well 1</td>
</tr>
<tr>
<td>5824-03</td>
<td>Kilohana Well E</td>
<td>Puhi Well 2</td>
</tr>
</tbody>
</table>

Please make the necessary adjustments to reflect this change within your respective divisions. If you have any questions, please call Gregg Fujikawa at 245-6986.

Raymond H. Sato
Manager and Chief Engineer

GF:rm
cc: Clean Water Branch, DOH
    Wastewater Branch, DOH
    Kauai District Office, Environmental Health Services - DOH
# PUMP EFFICIENCY TEST DATA

**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**  
**DIVISION OF WATER AND LAND DEVELOPMENT**

**WELL "E"**  
Pump Serial No: 244093  
Motor Serial No: 9305037-794

**Test Conducted By:** P.W. B.I. C.M  
**Witnessed By:** T.N.

**Date of Test:** 3/22/84

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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</table>
PUMP ASSEMBLY DATA SHEET

WELL "E"

DESIGN DATA (From Specs)

- Min. Capacity: 300 gpm
- Max. Size Pump: 7" inches
- Min. Discharge Column: 5 inches
- Max. Pump Speed: 1800 rpm
- Power Requirement: Volts 460
  Phase 3
  Cycle 60
- Total Field Pumping Hd. Range: 275 feet
- Min. Overall Efficiency: 65%

INSTALLED MOTOR DATA

- Manufacturer: US Electrical Motors
- Serial No.: 4305037-794
- Model: 
- H.P.: 30
- Service Factor: 1.15
- Type: RUE
- Code: G
- Frame: 324 TPH
- Insulation: F
- Cycle: 60
- Phase: 3
- Enclosure: WP-1
- F. L. Amps: 35.7
- F. L. Speed: 1775 rpm
- Temp. Rise: 40 Degree C
- Bearing Thrust: Up: ____ Lbs
  Down: ____ Lbs
- Space Heater:
  Watts: 90
  Volts: 115

INSTALLED PUMP DATA

- Manufacturer: Peerless
- Serial No.: 244093
- Model: 7x8
- Size of well casing: 8" in.
- Bott of cased well elev: 407.81 ft (m.s.l)
- Bott of open hole elev: 206.33 ft (m.s.l)
- Diameter: 7 inches
- Impeller: Bronze
- Type: 

INSTALLED COLUMN DATA

- Discharge Column: 5 inches
- Oil Column: __________ inches
- Line Short: __________ feet
STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
DIVISION OF WATER AND LAND DEVELOPMENT  

FIELD TEST DATA  
WELL "E"

Date of Test  3/22/84  
Tested by  P.W., B.L., C.M.  
Witnessed by  T.N.  
Time Test Started  8:57 AM  
Time Test Ended  11:07 AM

TEST EQUIPMENT

Electrical Equipment
Manufacturer  Weston  
Serial No.  5145  
Model  639 Type 2  
Amperage  0-125  
Voltage  0-600  
Fuse Amp  —  
C.T. Ratio  —  
K.W. Scale Multiplier  100  
H.P. Constant  —

Pressure Gauges
Airline (Well Level Recorder)  
Discharge Line  Ashcroft  
Inlet Line  —  
Flow Meter  Niagara 8306263

COMMENTS:  Pump starts and runs at 300 gpm with no problems. Overall efficiency is good.

CONCLUSION:  Pump can run at design capacity.

RECOMMENDATION:  Place on line as soon as possible.

SUBMITTED BY  CHRIS MILLS  
DATE  3/23/84
WELL MODIFICATION PERMIT
for
State Well No. 5824-03
Kilohana Well "E"
Lihue, Kauai

TO: Kauai Department of Water Supply
P. O. Box 1706
Lihue, Hawaii 96766

In accordance with Chapter 166 of Title 13, "Rules for the Control of Ground Water Use in the State of Hawaii," your application to modify Kilohana Well "E", State Well No. 5824-03, is approved subject to the following conditions:

1. Pumping test data shall be submitted to the Division of Water and Land Development within 60 days after testing of the well.

2. Monthly pumpage records shall be submitted after the well is put into production.

3. Upon completion of the well, submit an "as-built" drawing of the well.

4. The applicant comply with all applicable rules, ordinances, and laws.

/SUSUMU ONO/
SUSUMU ONO
Chairman of the Board

Date of Issuance
12/29/82

bcc: USGS
Dept. of Health
December 14, 1982

Mr. Robert T. Chuck
Manager and Chief Engineer
Division of Water & Land Dev.
P. O. Box 373
Honolulu, HI 96809

Re: Well Modification Permits for Kilohana Wells "C", "E" and "F"

Enclosed are three(3) completed application forms for well modification permits of the subject wells. We are planning to advertise for bids at the ending of December, 1982 or early January, 1983.

Raymond H. Sato
Manager and Chief Engineer

Enclosures
WELL MODIFICATION PERMIT

Instructions: Send completed application and attachments to Department of Land and Natural Resources, P.O. Box 373, Honolulu, Hawaii 96809.
Reference: Regulation 9, Dept. of Land & Natural Resources.

Is the well located in a Designated Ground Water Control Area? Yes No
If "yes", application must be accompanied by a Water Use and/or Water Supply Permit and a non-refundable filing fee of $100 payable to the Department of Land & Natural Resources. However, if application is for minor modification of well, filing fee may be waived. If "no", no filing fee is required. Filing fee is waived for federal, state, and county government agencies.

1. WELL LOCATION: Island Kauai Tax Map Key 3-4-0513. Attach a plot plan showing well location referenced to established property boundaries.

2. WATER USER Department of Water Telephone 245-6984 Address P.O. Box 1700, Lihue, Hawaii Zip Code 96766

3. PROPOSED DRILLING COMPANY:

4. PROPOSED WORK: Drill new well Deepen Redrill Alter Seal Abandon Install new pump Replace pump Modify pump

Fill in the diagram and briefly describe the proposed work (use back of form if necessary):

Install a 300 gpm vertical turbine pump & appurtenances.

SECTION OF WELL

Kilohana Well "E"

Elevation at top of casing 405.85 ft. msl.

Ground Elev 408.27 ft. msl.

Solid casing Material Corten Length 97.98 ft. Diameter 8 in. Wall thickness 0.25 in.

Casing: 8 Perforated Screed Material Corten Length 130 in. Diameter 8 in. Wall thickness 0.25 in. Openings 80 in. m. L.F.

Open Hole: Length None ft. Diameter in.

Rock Packing 133 ft.

Approximate elev. at filing. Final elev. (msl) by a surveyor licensed by the State must be submitted at start of construction.

5. PROPOSED USE: Municipal Military Agriculture Industrial

Domesstic Disposal Other (specify)

6. PROPOSED AMOUNT OF WITHDRAWAL: Check most appropriate box and fill in amount.

Daily 329,000 gallons Monthly 39,000 gallons Yearly 460,000 gallons

7. PROPOSED PUMP OR FLOW CAPACITY: 300 gallons per minute

Signature: Water User

Signature: Landowner of Well Site

Date: Date:

For Official Use:
State Well No. 9824 - 03
DLNR Permit No. DLNR Application No.
LEGEND

\[ \text{Exploratory Holes} \]
\[ \text{Existing Holes} \]

\text{Kilohana Wells}

1. WELL 'A' 5923-01
2. B 5923-02
3. C 5923-03
4. D 5824-02
5. E 5824-03
6. F 5923-04
7. G 5923-05
8. H 5923-06
9. J 5923-07
10. I 5824-04

\text{Well 'J' capped}
\text{Abandoned}

\text{Well 'D' capped}
\text{Abandoned}

\text{Existing 0.5 M.G. Tank}

\text{K.C.C. Pump Station Site}

\text{Garlinghouse Tunnel Site}

\text{Kauai Community College}

\text{Hoomana}

\text{Road}

\text{HIGHWAY}

\text{LOCATION: FROM KAULI DWS}
December 3, 1980

MEMORANDUM FOR THE RECORD

FROM: Daniel Lum

SUBJECT: Kilohana Well E - Pump Design

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<th>Parameter</th>
<th>Value</th>
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<tr>
<td>Bot of Sol Csg</td>
<td>70'</td>
</tr>
<tr>
<td>Bot of Perf Csg</td>
<td>202'</td>
</tr>
<tr>
<td>Bot of Hole</td>
<td>202'</td>
</tr>
<tr>
<td>DTW</td>
<td>60'</td>
</tr>
<tr>
<td>DD @ 227 gpm</td>
<td>42'</td>
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<tr>
<td>DD @ 244 gpm</td>
<td>52'</td>
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<td>DD @ 300 gpm</td>
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RECOMMENDED:

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<tr>
<td>Pump Bowl Size</td>
<td>6&quot; dia</td>
</tr>
<tr>
<td>Pump Capacity</td>
<td>300 gpm (max)</td>
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<tr>
<td>Pump Setting (Top of Bowls)</td>
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<tr>
<td></td>
<td>160' @ 300 gpm</td>
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<tr>
<td></td>
<td>130' @ 250 gpm</td>
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<tr>
<td>Predicted dd</td>
<td></td>
</tr>
<tr>
<td></td>
<td>90'+ @ 300 gpm</td>
</tr>
<tr>
<td></td>
<td>60'+ @ 250 gpm</td>
</tr>
</tbody>
</table>

DAN LUM

DL:ai
NOTICE OF INTENT TO DRILL

WELL NAME: Moloa Well "E"
ISLAND: Kauai

OWNER OF WELL: Department of Water, County of Kauai
Mailing Address: P.O. Box 1706, Lihue, Kauai, Hawaii 96766

DRILLING COMPANY: Roscoe Moss Company
Mailing Address: 830 Ahua Street, Honolulu, Hawaii 96819
Proposed Construction Date: March 3, 1980
Proposed Completion Date: August 29, 1980

PROPOSED USE OF WELL:
(a) Domestic X
(b) Irrigation
(c) Industrial (type)
(d) Cooling (type)
(e) Disposal (type)
(f) Other (specify)

LOCATION OF WELL: (Attach copy of USGS topographic map, plantation field map, road map, or prepared drawing showing exact location. If not available, prepare a hand-drawn sketch map (not necessarily to scale) in the space below showing sufficient landmarks, distances, and directions for location in the field)

Date Submitted: ____________________________ Signature of Owner: ____________________________

Title (If Applicable): Manager & Chief Engineer

FOR DRILLER'S USE
Job Name: ____________________________
Job No.: ____________________________

INSTRUCTIONS: Send three (3) copies to: Manager-Chief Engineer, Division of Water and Land Development, P. O. Box 373, Honolulu, HI 96809.


FOR OFFICIAL USE
Latitude: 21° 58' 40"
Longitude: 157° 24' 28"
Well No.: 5824-03
**DESCRIPTION**

**Date of report**: October 13, 1980. **Person filling report**: Runnells, J.H.

A. **OWNER**: Water Dept. **NAME**: Well E Kilohana
B. **GENERAL LOCATION**: Kauai College
C. **DRILLING COMPANY**: Roscoe Moss Company
D. **TYPE OF RIG**: Cable tool **DRILLING COMPLETED**: Aug. 1980

E. **ELEVATION**: msl: Top of drilling platform 404 ft. **Height of drilling platform above ground surface**: 0 ft. **Bench mark and method used to determine elevation**: ...
F. **HOLE SIZE**: 12 inch dia. to 200 ft. below drilling platform.
G. **CASING INSTALLED**: 8 in. I.D. x 259 ft. wall solid section to 65 ft. below drilling platform.
H. **ANNULUS**: Grouted 30 ft. to 200 ft. below drilling platform.

I. **PERMANENT PUMP INSTALLATION**:
- **Capacity**: g.p.m.
- **Depth of pump intake setting**: ft. below.
- **Depth of bottom of airline**: ft. below.

**HYDROLOGY**

**INITIAL WATER LEVEL**: 63'6" ft. below drilling platform. **Date of measurement**: June 3, 1980

**INITIAL CHLORIDE**: ppm, total depth of well 200 ft. below drilling platform

**PUMPING TESTS**:
- **Reference point (R.P.) used**: which elevation is ft.
- **Sampling Date**: ft.

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<th>Date</th>
<th>Start water level</th>
<th>Depth of well</th>
<th>Elapsed Time (hours)</th>
<th>Rate (gpm)</th>
<th>Draw-down (ft.)</th>
<th>Cl- (ppm)</th>
<th>Temp. F</th>
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<td>63'6&quot; ft. below R. P.</td>
<td>200 ft.</td>
<td>to 72 hour test</td>
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<td>to 250 GPM</td>
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**SUBSURFACE FORMATION**

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<th>Rock Description &amp; Remarks</th>
<th>Water Level</th>
<th>Depth, ft.</th>
<th>Rock Description &amp; Remarks</th>
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<td>195 to 200</td>
<td>Red clay and rock</td>
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<td>77 to 85</td>
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<td>85 to 90</td>
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<td>93 to 105</td>
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<td>105 to 107</td>
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<td>130 to 180</td>
<td>Med. hard rock with clay</td>
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<td>180 to 195</td>
<td>Hard rock</td>
<td>to</td>
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<td>to</td>
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**REMARKS**: ...

**INSTRUCTIONS**: Send three (3) copies to: Manager-Chief Engineer, Division of Water and Land Development, P. O. Box 373, Honolulu, Hawaii 96809.
