PAUA VALLEY WELL 5942-01
KEKAHA, KAUAI, HAWAII

AS BUILT SECTION
DRILLED: AUG. 1970
DRILLER: ROSCOE MOSS CO.

NIPPLE

193.0 FT. MSL - TOP OF CASING
191.4 FT. MSL - FINISH GRADE

CEMENT BASKET
9.4 FT. ABOVE MSL
STATIC WATER LEVEL

-18 FT. MSL
BOTTOM OF WELL

NOT TO SCALE

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

JOB NO. 51-KW-6
DRILLING LOG
ROSCOE MOSS COMPANY

Date: Aug 5 1970
Job No. Hole No. Elevation ft.
Customer Dept of LEWA Location Kaua, Hawaii

Driller S. Leslie 10 Hrs. Rig 2241
Helper T. Kaina 10 Hrs. Gas Oil
Helper Hrs. Repairs
Arv. Job Hrs. Or. No.

Bit-Size 12" - 16" Type IR. H. IR. H.
Casing-Size in., Length in hole ft. in., Amt. Perforated ft. in.
Depth Start 198 ft., Depth Stop 210 ft., Feet Drilled 12
Water Levels, Time 7:30 A.M. 192.8 ft., Time M ft.

Depth Formation Remarks
198 Precast Grey Rock
210

Measurements

A B

Remarks: Worked on 16" bit - put on 16" bit -

Signed Jim Leslie Date Aug 5 1970

[Handwritten notes and signatures]
<table>
<thead>
<tr>
<th>Date</th>
<th>Aug 4, 1978</th>
<th>Job No.</th>
<th>Hole No.</th>
<th>Elevation (ft)</th>
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<tbody>
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<td>Customer</td>
<td>Dept. of L &amp; N R</td>
<td>Location</td>
<td>Keahamau, Maui</td>
<td></td>
</tr>
<tr>
<td>Driller</td>
<td>Skelton</td>
<td>Rig</td>
<td>290</td>
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<tr>
<td>Helper</td>
<td>O. Taima</td>
<td>Hrs.</td>
<td></td>
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<tr>
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<td>Hrs.</td>
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<tr>
<td>Arv. Job</td>
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<td>Hrs.</td>
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<tr>
<td>Lv. Job</td>
<td></td>
<td>Or. No.</td>
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<th>Bit Size</th>
<th>16&quot;</th>
<th>Type</th>
<th>N.H.</th>
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<td>Depth Start</td>
<td>ft., Depth Stop</td>
<td>ft., Feet Drilled</td>
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</tr>
<tr>
<td>Water Levels, Time</td>
<td>M ft., Time</td>
<td>M ft., Measurements</td>
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### Depth

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

**Remarks:** Ramped 12" pilot hole with 16" bit 17' to 32'

**Signed:** Sam Lelei
**Date:** Aug 4, 1978
DRILLING LOG

ROSCOE MOSS COMPANY

PHONE 533-6605  630 KEAWE STREET  HONOLULU, HAWAII—96806

Customer  Dept. of L & NR  Location  Kekaha, Kauai

Driller  S. Leslie  10 Hrs.  Rig  29K
Helper  A. Kaione  10 Hrs.  Gas  Oil
Helper
Arv. Job  Lv. Job  Hrs.  Repairs

Bit-Size  16"  Type  M H
Casing-Size  in., Length in hole  ft.  in., Amt. Perforated  ft.  in.
Depth Start  210  ft., Depth Stop  ft., Feet Drilled
Water Levels, Time  M  ft., Time  M  ft.

Depth  Formation  Remarks  Top

Measurements

A  B

Remarks:  Reamed 12" pilot hole with 16" bit 82' to 100'.

Signed  Date  Aug-5  1970

Ted Ford - controlling  1970
**DRILLING LOG**

**ROSCOE MOSS COMPANY**

**PHONE** 533-6605

**630 KEAWE STREET**  
**HONOLULU, HAWAII—96806**

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<th>Elevation ft.</th>
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<td>J. Leslie</td>
<td>P. Kaiona</td>
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<th>Hrs.</th>
<th>Gas</th>
<th>Oil</th>
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<th>Length in hole</th>
<th>ft.</th>
<th>Amt. Perforated</th>
<th>ft.</th>
<th>in.</th>
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<th>Time M ft</th>
<th>Time M ft</th>
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**Remarks:**

Reamed 12" pilot hole with 12" bit 100' to 140'. Couple bad spots - leveled 540 gals water.

**Signed:** Alan Leslie  
**Date:** Aug. 6, 1970
# DRILLING LOG

**ROSOCOE MOSS COMPANY**

**PHONE 533-6605**

**630 KEAWE STREET**

**HONOLULU, HAWAII—96806**

**DATE: Aug-7 1970**

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<tr>
<td>S. Loshi</td>
<td>D. Cairns</td>
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<th>Hrs.</th>
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<td>ft.</td>
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<td>Ft.</td>
<td>In.</td>
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<td>210 ft.</td>
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<th>ft.</th>
<th>Time</th>
<th>M</th>
<th>ft.</th>
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</table>

**Measurements**

**Remarks:**

- Reamed 12" pilot hole 140' to 165' -
- Couple more bad spots -
- Handled 350 gals. water

**Signed:**

**Date:** Aug-7 1970
**DRILLING LOG**

**ROSCOE MOSS COMPANY**

**PHONE 533-6605**

**630 KEAWE STREET**

**HONOLULU, HAWAII—96806**

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<tr>
<th>Date</th>
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<td>Sept 2 1970</td>
<td></td>
<td></td>
<td>ft.</td>
<td>Dept of L+N P</td>
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<tr>
<td>S. Las lv</td>
<td>B. F. jen</td>
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<th>M</th>
<th>ft.</th>
<th>Time</th>
<th>M</th>
<th>ft.</th>
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<thead>
<tr>
<th>Remarks</th>
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</table>

**Remarks:**
- Loaded all of test pump.
- Holes 1 & 2 failed at 100 ft.
- Dump returned empty barrels of cylinder of air.
- Shipped water from Post Allen.
- Bailed back to town.
- Loaded pick-up.
- Hauled out completed.
- Towed thru diesel engine to town.
- Set line up against on pallet.

**Signed:**

**Date:** Sept 2 1970
# DRILLING LOG

ROSCOE MOSS COMPANY

**PHONE** 533-6605  
**630 KEAWE STREET**  
**HONOLULU, HAWAII—96806**

**Date:** Sept 1, 1970  
**Job No.:**  
**Hole No.:**  
**Elevation:** ft.

**Customer:**  
**Location:** Koko Loa

**Driller:** S. Leslie  
**12 Hrs.** Rig

**Helper:** A. Kainoi  
**12 Hrs.** Gas

**Helper:**  
**Hrs.** Oil

**Arv. Job:**  
**Lv. Job:**  
**Hrs.** Repairs

**Or. No.:**

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<tr>
<td>0 - 5 1/2&quot;</td>
<td>6&quot;</td>
<td>A - B</td>
</tr>
<tr>
<td>10' 5 1/2&quot;</td>
<td>6&quot;</td>
<td>150' 5 3/4&quot; - 6 1/4&quot;</td>
</tr>
<tr>
<td>20' 5 1/2&quot;</td>
<td>6&quot;</td>
<td>170' 5 3/4&quot; - 6 1/4&quot;</td>
</tr>
<tr>
<td>30' 5 1/2&quot;</td>
<td>6&quot;</td>
<td>180' 5 3/4&quot; - 6 1/4&quot;</td>
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<tr>
<td>40' 5 1/2&quot;</td>
<td>6 1/2&quot;</td>
<td>200' 5 3/4&quot; - 6 1/2&quot;</td>
</tr>
<tr>
<td>50' 5 1/2&quot;</td>
<td>6 1/2&quot;</td>
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<td>60' 5 1/2&quot;</td>
<td>6 1/2&quot;</td>
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<tr>
<td>70' 5 1/2&quot;</td>
<td>6 1/2&quot;</td>
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<tr>
<td>80' 5 1/2&quot;</td>
<td>6 1/2&quot;</td>
<td>Corrected drill hole</td>
</tr>
<tr>
<td>90' 5 1/2&quot;</td>
<td>6 1/2&quot;</td>
<td>Breakdown drill tools</td>
</tr>
<tr>
<td>100' 5 1/2&quot;</td>
<td>6 1/2&quot;</td>
<td>Tore down rig - 1 shock</td>
</tr>
<tr>
<td>110' 5 1/2&quot;</td>
<td>6 1/2&quot;</td>
<td>Loaded the chart with drill tools</td>
</tr>
<tr>
<td>120' 5 1/2&quot;</td>
<td>6 1/2&quot;</td>
<td>Took 2is to Point Allen</td>
</tr>
<tr>
<td>130' 5 1/2&quot;</td>
<td>6 1/2&quot;</td>
<td>Corrected well - took down mud</td>
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**Remarks:**

---

**Signed:** Jim Soto  
**Date:** Sept 1, 1970
# ROUTE SLIP

**DIVISION OF WATER AND LAND DEVELOPMENT**

**From:** [Name]

**Date:** 4/11

**File in:** JIKU 6

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<td>See me</td>
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<td></td>
<td>Walter O. Watson</td>
<td>Take action</td>
</tr>
<tr>
<td></td>
<td>Takeo Fujii</td>
<td>Route to your branch</td>
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<tr>
<td></td>
<td>James Yoshimoto</td>
<td>Review &amp; comment</td>
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<td></td>
<td>Albert Ching</td>
<td>Investigate &amp; report</td>
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<td>Hong Fong Chang</td>
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<td>Harold Sakai</td>
<td>FOR YOUR:</td>
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<td>Jane Sakai</td>
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<td>Jean Siarot</td>
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<tr>
<td></td>
<td>Elsie Yonamine</td>
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**REMARKS:**

Illegible
DRILLING LOG

ROScoe MOSS COMPANY

PHone 533-6605
630 KEawe STREET
HONOLUU, HAWAI-96806

Date __ Aug. 31, 1972 __ Job No. __________ Hole No. __________ Elevation __________ ft.
Customer __ Dep. of LNR __ Location __ Keeha, Kauai __

Driller __ S. Leslie __ 12 Hrs. __ Rig __________
Helper __ O. Keinan __ 7 Hrs. __ Gas ___________ Oil ___________

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 __________

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

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Measurements

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<th>B</th>
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Remarks: Pumped @ 700 GPH for awhile then back

Signed __________ Date ____________ 1972
**DRILLING LOG**

**ROSCOE MOSS COMPANY**

**PHONE 533-6605**

**630 KEAWE STREET**

**HONOLULU, HAWAII—96806**

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<td>S. Leshe</td>
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<tr>
<td>Hrs.</td>
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<td>Hrs.</td>
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**Bit-Size**

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<th>Size</th>
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</table>

**Casing-Size**

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</table>

**Depth Start**

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<th>Ft.</th>
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</table>

**Depth Stop**

<table>
<thead>
<tr>
<th>Ft.</th>
<th></th>
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</thead>
</table>

**Feet Drilled**

<table>
<thead>
<tr>
<th>Ft.</th>
<th></th>
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</thead>
</table>

**Water Levels**

<table>
<thead>
<tr>
<th>Time</th>
<th>M. ft.</th>
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</thead>
</table>

**Measurements**

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

**Depth**

<table>
<thead>
<tr>
<th>Form.</th>
<th>Remarks</th>
</tr>
</thead>
</table>

**Remarks:**

- Testing 22 ft. continuously @ 350 g.p.m.

**Signed:**

- signed date: Oct. 10, 1970
**DRILLING LOG**

**ROScoe MOSS COMPANY**

**PHONE** 533-6605
630 KEAWE STREET HONOLULU, HAWAII—96806

**Date** Aug 29 1970  **Job No.**  **Hole No.**  **Elevation** ft.

**Customer** Dept of L & R  **Location** Keaau, Kauai

**Driller** J. Losh  **12 Hrs.** Rig

**Helper** A. Kaion  **12 Hrs.** Gas

**Helper**  **Hrs.** Oil

**Arv. Job**  **Lv. Job**  **Hrs.** Repairs

**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**
---|---|---|---

<table>
<thead>
<tr>
<th>Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Testing Hole</td>
</tr>
<tr>
<td></td>
<td>Pumping continuously @ 500 GPH</td>
</tr>
<tr>
<td></td>
<td>Approx. 6.5' downtime @ 7:00 P.M.</td>
</tr>
</tbody>
</table>

**Remarks:**

---

**Signed**  
**Date** Oct 25 1970
# DRILLING LOG

## ROSCOE MOSS COMPANY

**PhonE** 533-6605

**630 KEAWE STREET**

**HONOLULU, HAWAII—96806**

---

<table>
<thead>
<tr>
<th>Date</th>
<th>Aug-28 1976</th>
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</thead>
<tbody>
<tr>
<td>Job No.</td>
<td></td>
</tr>
<tr>
<td>Hole No.</td>
<td></td>
</tr>
<tr>
<td>Elevation</td>
<td></td>
</tr>
</tbody>
</table>

**Customer** Dept. of L & N | **Location** Kahalu, Kauai

**Driller** S. Lesle 12 Hrs. Rig

**Helper** A. Keino 13 Hrs. Gas

**Helper** 4 Hrs. Oil

**Arv. Job** 1870 13 Hrs. Repairs

**Lv. Job** 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.

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

- **Test well:**
  - Pumped to approx. 515 GPM
  - till 10:00 am -
  - kvart up to 700 GPM -
  - Manometer went down to 0 and
    in short time -
  - Lowered Rate - 500 GPM

**Remarks:** Rainout picked up & Barrels diesel fuel & lunch gasoline

**Signed**

**Date** 11/1/1976
## DRILLING LOG

**ROSCOE MOSS COMPANY**

**630 KEAWE STREET**

**HONOLULU, HAWAII-96805**

---

### Date: Aug. 27 1970

### Job No. __________ Ho. No. __________ Elevation __________ ft.

### Customer: Dept. of L & NR

### Location: Kēōkea, Oahu

### Driller: S. Leslie

### Helper: D. Kanoe

### Arv. Job __________ Lv. Job __________

### Hrs. Rig __________

### Hrs. Gas __________

### Hrs. Repairs __________

### Hrs. Gas __________ Oil __________

### Hrs. Repairs __________

### 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.

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

---

**Testing Well: /r/n"Pumping continuously @

Approx. 515 GPM"**

---

**Remarks:**

---

**Signed:** W. T. Coli

**Date:** Dec. 27 1970
# DRILLING LOG

**Roscobe Moss Company**

**Phone:** 533-6605  
**630 Keawe Street**  
**Honolulu, Hawaii—96806**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Customer</td>
<td>Dept. of L &amp; E</td>
<td></td>
<td>Location</td>
<td>Kokio, Kauai</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Driller</th>
<th>S. Leslie</th>
<th>12 Hrs.</th>
<th>Rig</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Helper</td>
<td>D. Xiaa</td>
<td>13 Hrs.</td>
<td>Gas</td>
<td>Oil</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arv. Job</td>
<td>7:00 Am.</td>
<td>7:00 Pm.</td>
<td>Hrs. Repairs</td>
<td>Or. No.</td>
</tr>
<tr>
<td>Lv. Job</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Bit-Size</th>
<th></th>
<th>Type</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Casing-Size</td>
<td>in., Length in hole</td>
<td>ft. in., Amt. Perforated</td>
<td>ft. in.</td>
<td></td>
</tr>
<tr>
<td>Depth Start</td>
<td>ft., Depth Stop</td>
<td>ft., Feet Drilled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Levels, Time</td>
<td>M ft., Time</td>
<td>M ft.</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
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<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Testing well</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pumping approx 375 GPM</td>
<td>Continuous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chlornes—Highest 36.0 ppm</td>
<td>Lowest 35.4</td>
</tr>
</tbody>
</table>

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

**Remarks:** Equipment out of order, pickup & picked up 2,550 ft.
DRILLING LOG

ROSCOE MOSS COMPANY

PHONE 533-6605
630 KEAWE STREET
HONOLULU, HAWAII—96806

Customer Location Kokolu Kauai

Driller Alaska 7:00 A.M. 11:00 P.M. 12 Hrs. Rig 282
Helper Alaska 7:00 A.M. 11:00 P.M. 17 Hrs. Gas
Arv. Job_________ Hv. Job_________ Hrs. Repairs

Helper_________ Hrs. Or. No.

Bit-Size_________ Type_________


Depth Start_________ ft., Depth Stop_________ ft., Feet Drilled

Water Levels, Time_________ M ft., Time_________ M ft., Remarks

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formaion</th>
<th>Remarks</th>
<th>Top</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:15</td>
<td>12:15 1</td>
<td>510</td>
<td>A</td>
</tr>
<tr>
<td>10:15</td>
<td>12:15 1</td>
<td>510</td>
<td>A</td>
</tr>
</tbody>
</table>

Took Ford Pickup to Port Allen
to ship out-

Keeping up ret-wiring to

Stood testing well -

Started Test at 10:50 P.M.

Time G.P.H. P.P.H.

10:15 320 5.25 ft.
10:30 353 5.15 ft.
12:15 510 7.85 ft.

Remarks:

Took Ford pickup with fuel to Port Allen.

Signed: Date Aug 25 1970
## DRILLING LOG

**ROSCOE MOSS COMPANY**

**PHONE 533-6605**

630 KEAWE STREET

HONOLULU, HAWAII—96806

---

**Date**: Aug 24 1970  
**Job No.**:  
**Hole No.**:  
**Elevation**: ___ ft.

**Customer**: Dept of LYN R

**Location**: Kahului, Maui

---

**Driller**: S. Leslie  
**10 Hrs.**: Rig  
**Gas**: __________ 
**Oil**: __________ 
**10 Hrs.**: Gas

**Helper**: A. Paine

**10 Hrs.**: Gas

**Hrs.**: Repairs

**Arv. Job**: __________  
**Lv. Job**: __________  
**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>
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<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
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</table>

**Remarks:**

- **Sep 3, 1970**: Pick up nice truck @ Now, plant to Kahului.
- **Sept 4, 1970**: Loaded all excess equip.
- **Sept 4, 1970**: Handled hydraulic @ Now.
- **Sept 5, 1970**: picked up & hauled left drill bit.
- **Sept 6, 1970**: Went back to Kahului.
- **Sept 7, 1970**: Got all set up for testing.

**Signed**: P. D. Delos  
**Date**: Aug 24, 1970
## DRILLING LOG
### ROSCOE MOSS COMPANY

**PHONE** 533-6605
**630 KEAWE STREET**
**HONOLULU, HAWAII—96806**

<table>
<thead>
<tr>
<th>Date</th>
<th>Aug-22 1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job No.</td>
<td>Hole No.</td>
</tr>
<tr>
<td>Customer</td>
<td>Dept. of LYNR</td>
</tr>
<tr>
<td>Driller</td>
<td>S. Leslie</td>
</tr>
<tr>
<td>Helper</td>
<td>D. Kainoa</td>
</tr>
<tr>
<td>Helper</td>
<td></td>
</tr>
<tr>
<td>Arv. Job</td>
<td></td>
</tr>
<tr>
<td>Lv. Job</td>
<td></td>
</tr>
<tr>
<td>Hrs.</td>
<td></td>
</tr>
<tr>
<td>Repairs</td>
<td></td>
</tr>
<tr>
<td>Or. No.</td>
<td></td>
</tr>
<tr>
<td>Bit-Size</td>
<td></td>
</tr>
<tr>
<td>Depth Start</td>
<td>ft., Depth Stop</td>
</tr>
<tr>
<td>Water Levels, Time</td>
<td>M ft., Time</td>
</tr>
</tbody>
</table>

### Measurements

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

- Hand battery for diesel engines charged
- Finished installing & test pump
- Lay of Airline to Elev. B2.30' (dec) = 201.72'
- C.A. Lay of pump to = 205.72'
- Started pump @ 4:45
- Cleaned out than surged
  - Well @ low rate approx. 200 G.P.H.

**Remarks:**
- Put in 10" x 4" gravel plate
- Pumped till 6:45
  - 6:45 P.M. - 230 G.P.H.
  - 11:30 P.M. - 113 draw down

**Signed:** S. Leslie

**Date:** Aug-22 1970
## DRILLING LOG

### ROSCOE MOSS COMPANY

**PHONE** 533-6605  
**630 KEAWE STREET**  
**HONOLULU, HAWAII—96806**

**Date**: Aug - 21 1970  
**Job No.**:  
**Location**:  
**Hole No.**:  
**Elevation**: ft.

**Customer**: Dept of E.H.E.  
**Driller**: J. Leslie  
**Hrs.**: 16  
**Rig**: 28T

**Helper**: O. Keenan  
**Hrs.**: 8  
**Gas**:  
**Oil**: 

**Driller**:  
**Hrs.**:  
**Gas**:  
**Oil**:  

**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

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

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

**Measurements**

**A** | **B**
---|---

**Remarks**:  
Set up & installed section bowls & 11 sections—  
Tent 17 ft. high & four 19 ft. columns—  
To use one 24' section

Klint to Honolulu—Picked up  
Large swivel hook—  
Picked up 10" oiifer pipe

Signed:  
**Date**: Aug - 21 1970
**DRILLING LOG**

**ROSCOE MOSS COMPANY**

**PHONE 533-6605**

**630 KEAWE STREET**

**HONOLULU, HAWAII—96806**

**Date** Aug-20 1970  **Job No.**

**Hole No.**  **Elevation** ft.

**Customer** Dept. of HPN  **Location** Kanaha, Maui

**Driller** J. Leslie  **10 Hrs.** Rig Bit

**Helper** A. Kainoa  **14 Hrs.** Gas Oil

**Arv. Job**  **Lv. Job**  **Hrs.** Repairs

**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**

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

**Measurements**

A

B

**Remarks:** Geared annular spicer—approx 5 1/2 yds—settling
Ready to install pump. Lengthened section from 17 1/2 ft.

Signed  [Signature]

Date  Aug-20 1970
## DRILLING LOG
### ROSCOE MOSS COMPANY

**Date:** Aug. 19 1976  
**Customer:** Dept. of L & N D  
**Location:** Keahou, Kona

**Driller** J. Leslie  
**Rig:** 28K  
**Hrs.:** 10

**Helper** D. E. H.  
**Gas:**  
**Oil:**  
**Hrs.:** 10

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

<table>
<thead>
<tr>
<th>Bit-Size</th>
<th>Type</th>
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</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>
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<table>
<thead>
<tr>
<th>Depth Start</th>
<th>ft., Depth Stop</th>
<th>ft., Feet Drilled</th>
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<tr>
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<table>
<thead>
<tr>
<th>Water Levels, Time</th>
<th>M. ft., Time</th>
<th>M. ft.</th>
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<tbody>
<tr>
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</tbody>
</table>

### Measurements

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

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

### Remarks:
- Worked on test pump - settling in position to install and some work on rig.
- Checked in and need .375 ft. of cement.
- Tomorrow.

**Signed:** Joe Lelei  
**Date:** Aug. 19 1976
**DRILLING LOG**

**ROSCOE MOSS COMPANY**

**PHONE 533-6605**

**630 KEAWE STREET**

**HONOLULU, HAWAII—96806**

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

Customer: Dept. of Liv. 

Location: Kaka‘ako, O‘ahu

Driller: J. Leslie

Hrs. Rig: 28

Helper: D. Kinchen

Hrs. Gas: 10

Hrs. Oil: 10

Hrs. Repairs: 0

Arv. Job: 0

Lv. Job: 0

Hrs. Or. No.: 0

**Bit-Size**

**Type**


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

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

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

**Depth**

**Formation**

**Remarks**

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

**Depth Formotion**

**Rema.'*

**Top**

**Signed**

**Date** Aug. 15, 1970

Remarks: Picked up one 2" pump column & heads & shaft @ Nuw-

Cleaning up last pump shaft & tubes. Changed two

and returned two.

Signed: [Signature]

Date: Aug. 15, 1970
### DRILLING LOG

**ROSOCOE MOSS COMPANY**

**PHONE** 533-6605  
**630 KEAWE STREET**  
**HONOLULU, HAWAII—96806**

**Date** Dec-14 1970  
**Job No.**  
**Hole No.**  
**Elevation** ft.  
**Customer** Dept of L & I  
**Location** Kukui Terrace

**Driller** J. Lashe  
**Hrs.** 11  
**Rig** 28L

**Helper** A. Kainoa  
**Hrs.** 11  
**Gas**  
**Oil**

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

**Arv. Job**  
**Lv. Job**  
**Hrs.**  
**Or. No.**

**Bit-Size**  
**Type**

**Casing-Size** 12 in.  
**Length in hole** 27 ft.  
**Amt. Perforated**  
**ft.**  
**in.**

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

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

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### Measurements

<table>
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<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
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</tr>
<tr>
<td></td>
<td></td>
<td>Picked up setting for cement</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>High @ 380 ft.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Picked up 5 bags cement @ New-fractionated basket - finished</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Running in casing</td>
<td></td>
</tr>
</tbody>
</table>

---

**Remarks:**  
Poured 5 bars reset cement for set-

---

**Total casing in 20 ft.**  
Dec-14-70 to Dec-14-70

---

**Signed**  
**Date** Dec-14-1970
DRILLING LOG

ROScoe MOSS COMPANY

PHONE 533-6605
630 KEAWE STREET
HONOLULU, HAWAII—96806

Customer Dept. of H H Location Kavaha Knani

Driller Jack Lee 10 Hrs. Rig 231/2
Helper Alan Medina 6 Hrs. Gas Oil
Helper ___________ ___________ ___________

Arv. Job _______ Lv. Job _______ Or. No. _______

Bit-Size ____________ Type ____________
Casing-Size 12 in., Length in hole 92'6 ft., 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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

"Put fire truck in garage to have flat tires repaired."
"Check Hale for freight—none."
"Want to handle—picked up some quiet for coming job."
"Come back to Dube waited for fire truck."
"Picked up 20' of 12" pipe."
"Now, had to return."

Remarks: Prepared to install casing—put in 3 lens of casing 20' for 1st guide, 5' from bottom, 2nd casing guide 25' from bottom.

Signed Sam Dahi Date Aug. 13 1970
DRILLING LOG

ROSCEO MOSS COMPANY

PHONE 533-6605
630 KEAWE STREET
HONOLULU, HAWAII—96806

Date: Dec. 12, 1970  
Job No.:  
Hole No.:  
Elevation: ft.

Customer: Dept. of L & R  
Location: Kakaako, Hawaii

Driller: S. G. C.  
Hrs. Rig: 20

Helper: P. Haun  
Hrs. Gas:  
Hrs. Oil:  
Hrs. Repairs:  
Arv. Job:  
Lv. Job:  
Hrs.:  
Or. No.:  

Bit-Size: 16"  
Type: M.H.

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

Depth Start: 210 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>
</table>

Measurements

Leveled test pump 100 ft. column back, lift head, new pump parts. Unleveled 12" casing.

Remarks: Finished lining hole to 210' - Took off 16" bit.

Signed: Jim Leali  
Date: Dec. 11, 1970
**DRILLING LOG**

**ROSCOE MOSS COMPANY**

**PHONE 533-6605**

**630 KEAWE STREET**

**HONOLULU, HAWAII—96806**

**Date** Aug. 11 1970  **Job No.**  **Hole No.**  **Elevation** ft.

**Customer** Dept. of H. R.  **Location** Kaneha, Kauai

**Driller** J. Lashie  **10 Hrs.**  **Rig** 281

**Helper** D. Kawag  **10 Hrs.**  **Gas**

**Helper**  **Hrs.**  **Oil**

**Arv. Job**  **Lv. Job**  **Hrs.**  **Or. No.**

**Bit-Size** 10"  **Type** H. H.

**Casing-Size** in., **Length in hole** ft.  **in.,** Am. Perforated ft.  **in.**

**Depth Start** 210 ft.,  **Depth Stop** 310 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>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:** Reamed 12" pilot hole - 180' to 200' - few bad spots

**Signed** Thaddeus  **Date** Aug. 11 1970
ROSCOE MOSS COMPANY

Date: Aug. 10, 1970


Customer: Dept. of LET & RE, Location: Kewai, Hawaii

Driller: Leslie

Helper: D. Kainoa

Arv. Job

Lv. Job

Hrs.

Rig 28L

Gas

Oil

Hrs. Repairs

Hrs.

Or. No.

Bit Size: 10" Type: Red


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

Measurements

A

B

Remarksl

Remarks: Reamed 12" pilot hole with 16" bit 165 ft to 180 ft.

Signed: Tim M. Aki

Date: Aug. 10, 1970
**DRILLING LOG**

**ROSCOE MOSS COMPANY**

Phone 533-6605  
630 Keawe Street  
Honolulu, Hawaii—96806

**Date** Aug. 1, 1970  
**Job No.**  
**Hole No.**  
**Elevation** ______ ft.

**Customer** Dept. of L&I  
**Location** Kokehe, Kauai

**Driller** S. Leslie  
**Hrs.** 10  
**Rig** 281

**Helper** D. Taine  
**Hrs.** 10  
**Gas**  
**Oil**

**Arv. Job**  
**Lv. Job**  
**Hrs.**  
**Repairs**

**Bit-Size** 12  
**Type** M-H.

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

**Depth Start** 175 ft., **Depth Stop** 125 ft., **Feet Drilled** 23

**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>173 ft</td>
<td>med. back gray clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>183 ft</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:**

**Signed**  
**Date** Aug. 5, 1970
**DRILLING LOG**

**ROSCOE MOSS COMPANY**

PHONE 533-6605

630 KEAWE STREET

HONOLULU, HAWAII—96806

**Date** July 31 1970

**Job No.**

**Hole No.**

**Elevation**

---

**Customer** Dept of ENV R

**Location** Kekaha Kauai

---

**Driller** S. Basie

**Hrs.** 10

**Rig** 280

---

**Helper** O. Kainoa

**Hrs.** 10

---

**Helper**

**Hrs.**

---

**Arv. Job**

**Lv. Job**

**Hrs.**

---

**Bit-Size** 12" M.H.

---

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

---

**Depth Start** 150 ft.

**Depth Stop** 173 ft.

**Feet Drilled** 25

---

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

---

**Depth**

**Formation**

**Remarks**

**Top** A B

---

**Remarks:** Loaded 350 yds water

---

**Signed** Tom Saki

**Date** July 31 1970
<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Date</td>
<td>July 28, 1970</td>
</tr>
<tr>
<td>Job No.</td>
<td></td>
</tr>
<tr>
<td>Hole No.</td>
<td></td>
</tr>
<tr>
<td>Elevation</td>
<td></td>
</tr>
<tr>
<td>Customer</td>
<td>Dept of E &amp; N</td>
</tr>
<tr>
<td>Location</td>
<td>Honolulu, Hawaii</td>
</tr>
<tr>
<td>Driller</td>
<td>S. Leslie</td>
</tr>
<tr>
<td>Hrs.</td>
<td>10</td>
</tr>
<tr>
<td>Rig</td>
<td>2B2</td>
</tr>
<tr>
<td>Helper</td>
<td>D. Kaioa</td>
</tr>
<tr>
<td>Hrs.</td>
<td>10</td>
</tr>
<tr>
<td>Gas</td>
<td></td>
</tr>
<tr>
<td>Oil</td>
<td></td>
</tr>
<tr>
<td>Hrs.</td>
<td></td>
</tr>
<tr>
<td>Repairs</td>
<td></td>
</tr>
<tr>
<td>Or. No.</td>
<td></td>
</tr>
<tr>
<td>Arv. Job</td>
<td></td>
</tr>
<tr>
<td>Lv. Job</td>
<td></td>
</tr>
<tr>
<td>Hrs.</td>
<td></td>
</tr>
<tr>
<td>Bit-Size</td>
<td>12&quot;</td>
</tr>
<tr>
<td>Type</td>
<td>14.11</td>
</tr>
<tr>
<td>Casing-Size</td>
<td></td>
</tr>
<tr>
<td>in.</td>
<td></td>
</tr>
<tr>
<td>Length in hole</td>
<td></td>
</tr>
<tr>
<td>ft.</td>
<td></td>
</tr>
<tr>
<td>Amt. Perforated</td>
<td></td>
</tr>
<tr>
<td>ft.</td>
<td></td>
</tr>
<tr>
<td>in.</td>
<td></td>
</tr>
<tr>
<td>Depth Start</td>
<td>125 ft.</td>
</tr>
<tr>
<td>Depth Stop</td>
<td>150 ft.</td>
</tr>
<tr>
<td>Feet Drilled</td>
<td>25</td>
</tr>
<tr>
<td>Water Levels, Time</td>
<td></td>
</tr>
<tr>
<td>M ft.</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td></td>
</tr>
<tr>
<td>M ft.</td>
<td></td>
</tr>
<tr>
<td>Measurements</td>
<td></td>
</tr>
<tr>
<td>Depth</td>
<td>Formation</td>
</tr>
<tr>
<td>Remarks</td>
<td></td>
</tr>
<tr>
<td>125</td>
<td>mud, hard, grey, etc</td>
</tr>
<tr>
<td>150</td>
<td>some thin, soft layers</td>
</tr>
<tr>
<td>Remarks:</td>
<td></td>
</tr>
<tr>
<td>Signed</td>
<td>Sam. J.</td>
</tr>
<tr>
<td>Date</td>
<td>July 28, 1970</td>
</tr>
</tbody>
</table>
DRILLING LOG

ROScoe MOSS COMPANY

PHone 533-6605 630 KEAWE STREET HONOLULU, HAWAII-96806

Customer: Dept. of E & N C  Location: Kekaha, Kauai

Driller: J. Leslie  Hrs. Rig: 10
Helper: B. Kaiona  Hrs. Gas: 10
Helper:  Hrs. Oil:

Bit Size: 12"  Type: P.A.

Depth Start: 111 ft., Depth Stop: 125 ft., Feet Drilled: 14

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>Top B</th>
</tr>
</thead>
<tbody>
<tr>
<td>111</td>
<td>mad. mixed grey cl.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>125</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Bailed water 350 gal.

Signed: L. C.  Date: July 27, 1970
**DRILLING LOG**

**ROSCOE MOSS COMPANY**

**PHON**E 533-6605 630 KEAWE STREET HONOLULU, HAWAI—I-96805

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Driller</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arv. Job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lv. Job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rig</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hrs. Repairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Or. No.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bit-Size</td>
<td>12&quot;</td>
<td>Type</td>
<td>M.H.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casing-Size</td>
<td></td>
<td>in.,</td>
<td>Length in hole</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ft.</td>
<td>ft.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>in.,</td>
<td>Amt. Perforated</td>
<td>ft.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depth Start</td>
<td>105 ft.</td>
<td>Depth Stop</td>
<td>111 ft.</td>
<td>Feet Drilled</td>
<td>6</td>
</tr>
<tr>
<td>Water Levels</td>
<td>Time M ft.</td>
<td>Time M ft.</td>
<td></td>
<td></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>105'</td>
<td>mud, hard grey rock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>111'</td>
<td>some thin hard layers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Measurements**

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

**Remarks:** Hole still trying to drift—Runs off fast
Bit damage—Selling service.

**Signed** Sam Leslie  Date July 25, 1970
**DRILLING LOG**

**ROSCOE MOSS COMPANY**

**630 KEAWE STREET**  
HONOLULU, HAWAII — 96806

**PHONE 533-6605**

---

**Date:** July 24, 1970  
**Job No.:**  
**Hole No.:**  
**Elevation:** 191.43 ft.

**Customer:** Dept. of H & R  
**Location:** Keewai, Kauai

**Driller:** S. Leslie  
**10 Hrs.**  
**Rig:** 281

**Helper:** J. Kainon  
**10 Hrs.**  
**Gas:**  
**Oil:**

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

**Arv. Job:**  
**Lv. Job:**  
**Hrs.**:

**Bit-Size:** 12"  
**Type:** M.M.

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

**Depth Start:** 95 ft.  
**Depth Stop:** 105 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>
</tr>
</thead>
<tbody>
<tr>
<td>95/102</td>
<td>Pictous grey rock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102/105</td>
<td>med. hard grey rock</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Remarks:** hole drifting in one direction all the time—

**Signed:** Sam Leslie  
**Date:** July 24, 1970
**DRILLING LOG**

**ROSCOE MOSS COMPANY**

**PHONE 533-6605**

630 KEAWE STREET

**HONOLULU, HAWAII—96806**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer</td>
<td>Test Pump for Eagle County</td>
<td>Job Location</td>
<td>Honolulu - Shop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Driller</td>
<td>Slesie</td>
<td>10 Hrs.</td>
<td>Rig</td>
<td>Gas</td>
<td>Oil</td>
</tr>
<tr>
<td>Helper</td>
<td>Kaino</td>
<td>10 Hrs.</td>
<td>Hrs.</td>
<td>Hrs.</td>
<td></td>
</tr>
<tr>
<td>Arv. Job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Or. No.</td>
<td></td>
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</tbody>
</table>

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

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

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

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

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

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

**Remarks:**

- Left Kaua' i @ 7:15 a.m.
- Went to shop - started
- Getting 10" test pump together
- Laid out - bad to find machine
- Work done to use Wayne's boiler
- Had one shaft coupling made to fit
- From one shaft to Wayne's boiler shaft
- Finishing one adapter oil tube left hand
- Threads one end - cut and worked on the other - made a 6" - 3" by head shaft
- Of a new sliding out -

**Signed:** Tim Kille

**Date:** July 23, 1974
## DRILLING LOG

### ROSCOE MOSS COMPANY

**PHONE 533-6605**  
630 KEAWE STREET  
HONOLULU, HAWAII—96806

---

**Date**: July 27, 1970  
**Job No.**:  
**Hole No.**:  
**Elevation**: ft.

**Customer**:  
**Location**: Kokoiki, Kona

---

**Driller**: A. Leshe  
**Hrs.**: 10  
**Rig**: 2.2

**Helper**:  
**Hrs.**:  
**Gas**:  
**Oil**:

---

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

---

**Bit-Size**: 12  
**Type**: M.H.

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

**Depth Start**: 78 ft., Depth Stop: 95 ft., Feet Drilled: 17

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

---

### Measurements

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>78 f.</td>
<td>porous gray rock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60 f.</td>
<td>med. hard gray rock — with thin soft layers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48 f.</td>
<td>Purulent gray rock</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Remarks**: Fuel off. Does not have cover on diesel engine—was leaking oil—still having to fuel engine. It under control.

---

**Signed**:  
**Date**: 7/27 1970
<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>73'</td>
<td>mud hard gray rock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Checked on bit in area (2 hrs) bought it up to

Signed: __________________

Date: July 21, 1970
**DRILLING LOG**

**ROSCOE MOSS COMPANY**

**PHONE:** 533·6605  
**630 KEAWE STREET**  
**HONOLULU, HAWAII—96806**

**Date:** July 20, 1970  
**Job No.:**  
**Hole No.:**  
**Elevation:**  
**Customer:** Dept. of L & N C.  
**Location:** Kaka’ako, Kona.

**Driller:** S. Leslie  
**10 Hrs. Rig:** 281  
**Helper:** A. Xainop  
**10 Hrs. Gas:**  
**Helper:**  
**Hrs. Repairs:**  
**Arv. Job:**  
**Lv. Job:**  
**Hrs. Or. No.:**

**Bit-Size:** 12”  
**Type:**  
**Casing-Size:** in., Length in hole ft. in., Amt. Perforated ft. in.

**Depth Start:** 68 ft., Depth Stop: 73 ft., Feet Drilled:

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

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>68’</td>
<td>mud, hard grey rock</td>
<td>checked with Yaris Drill for freight stone</td>
</tr>
<tr>
<td>73’</td>
<td></td>
<td>picked up 1 pc. 20” casing @ Nawa</td>
</tr>
<tr>
<td></td>
<td></td>
<td>checked in with B.O.Hl. about Kaka'ako pump</td>
</tr>
<tr>
<td></td>
<td></td>
<td>picked up gasoline @ Ted Allen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>hauled 350 gal. water</td>
</tr>
</tbody>
</table>

**Remarks:** hole starting to drift -

**Signed:** Sam Leeki  
**Date:** July 20, 1970
<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>42'</td>
<td>mar. sand rec.</td>
<td></td>
</tr>
<tr>
<td>68'</td>
<td>several thin soft layers</td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

Signed: "[Signature]"
Date: "July 17 1970"
### DRILLING LOG

**ROSCOE MOSS COMPANY**

**PHONE 533-6605**

**633 KEAWE STREET**

**HONOLULU, HAWAII—96806**

---

**Date:** July 15, 1976  
**Job No.:**  
**Hole No.:**  
**Elevation:** ft.

**Customer:**  
**Location:** Keawe, Hawaii

---

**Driller:** J. Leslie  
**12 Hrs.**  
**Rig:** 2016

**Helper:** R. Smith  
**12 Hrs.**  
**Gas:**  
**Oil:**

**Arv. Job:**  
**Lv. Job:**  
**Hrs.:**

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

**Arv. Job:**  
**Lv. Job:**  
**Or. No.:**

---

**Bit-Size:** 12''  
**Type:** M-4

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

**Depth Start:** 0 ft., **Depth Stop:** 42 ft., **Feet Drilled:** 42

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

---

<table>
<thead>
<tr>
<th>Depth</th>
<th>Formation</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>brown clay &amp; shales</td>
<td></td>
</tr>
<tr>
<td>16'</td>
<td>mud&amp; clay &amp; silt</td>
<td></td>
</tr>
<tr>
<td>42'</td>
<td>several thin coal layers</td>
<td></td>
</tr>
</tbody>
</table>

**Measurements**

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

---

**Remarks:**  
Finished adjusting guy lines - put up tool guide.  
Drill cable wouldn't turn - 40 ft. rope and operated & connected.  
Put on drilling jobs @ 40'.

---

**Signed:** Sam Kuki  
**Date:** July 15, 1976
DRILLING LOG

ROSCOE MOSS COMPANY

PHONE 533-6605

630 KEAWE STREET

HONOLULU, HAWAII—96806

Date: July 15, 1970
Job No.: __________
Hole No.: __________
Elevation: __________ ft.

Customer: Dept. of DEF
Location: Keahon, Kauai

Driller: S. Leslie
12 Hrs.

Rig: 2kt

Helper: A. Faino
12 Hrs.

Gas: __________
Oil: __________

Repairs: __________

Arv. Job: __________
Lv. Job: __________

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>Depth</th>
<th>Formation</th>
<th>Remarks</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

Temp low extended area -
Mixed rig - Reset decreer -
blued rig - put up guylines -
made up drill line -
Rebated had water -
Red on 12" bit -
Built up shirk -

Signed: Sam Leslie
Date: July 15, 1970
Date: July 14, 1979

Customer: Department of LLR

Driller: Leslie

Helper: O. Haines

Arv. Job: ______________

Lv. Job: ______________

Hrs. Job: ______________

Hrs. Repairs: ______________

Hrs. Gas: ______________

Hrs. Oil: ______________

Hrs. Rig: ______________

Rig: 256

Location: Keawha, Hawaii

Bit-Size: ______________

Type: ______________


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

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

Remarks:
- Landed pipe. Trouble with drill feed.
- Cleaning, blocks of shaker. Landed water.
- Filled line & Keelers.
- Faster arrival - leveled off area.
- Moved rig in - set up service.
- Blasted rig.
- Steel moved location 37' further.

Took down service halfway - unblocked rig, ready to move - called for trailer for removal equipment.

Signed: ______________

Date: July 14, 1979

---

Depth | Formation | Remarks | Top | A | B
--- | --- | --- | --- | --- | ---
| | | | | | 
| | | | | | 
| | | | | | 
| | | | | | 
| | | | | | 

---

---
DRILLING LOG

ROSCOE MOSS COMPANY

PHONE 533-6605
630 KEAWE STREET
HONOLULU, HAWAII—96806

Date: July 13, 1970
Job No.
Location: Kauai, Hawaii

Customer: Dept. of L.T.N.R.

Driller: S. Laslie
12 Hrs.
Rig: 28L

Helper: A. Koine
12 Hrs.
Gas: ___________ Oil: ___________

Helper:

Hrs.
Repairs:


Bit-Size: ____________ Type: ____________

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

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>
<tbody>
<tr>
<td></td>
<td></td>
<td>Checked with Young Bros. for pickup truck - truck wouldn't be unloaded till after noon.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plans to Koloa.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Took rig from Koloa to Kapaa - never drill site - unloaded drill tools &amp; more equipment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plans to Hanalei - Checked for trucks - not on yet. Plans to Hanalei - Relayed housewed equip - picked up twice &amp; went to Koloa.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Took to Oahu - then we'd move &amp; rest of equip to Kauai - unloaded tools.</td>
</tr>
</tbody>
</table>

Remarks:

Signed: ____________  Date: July 13, 1970
April 6, 1970

MEMO FOR THE RECORD

FROM: Daniel Lum

SUBJECT: Selection of Development-Well Site at Kekaha, Kauai

On March 17, 1970, I traveled to Kekaha, Kauai with Les Asari and Richard Teragawa to select a development-well site at Kekaha. We interviewed Larry Nishikawa, Department of Water, before going into the field.

Criteria. A new source of supply is needed to serve the expected increase in water demands in the Kekaha area due to state land developments. A source, double the present demand, is assumed to be required, that is, about 400 gpm.

Hydrologic Background. The overdraft and chloride sensitivity of the Kekaha ground water body is recognized. This is reflected in the records of the County's Kekaha shaft (sump) source. The static head was reported to be 11' in 1957, 8.2' in 1964 and 7.8' in 1967 (Dept. of Water personal communication). Chloride content was 70 to 80 ppm in 1962-63 with an average draft of 140 gpm and about 100 ppm in 1964-68 with an average draft of 230 gpm. In 1969, County Department of Water records show a more or less gradual increase in chlorides from 100 ppm to 125 ppm during 1969, and in Jan-March 1970, an increase to 130 ppm. Department of Water reports of breaking suction with the existing pump is explainable by a 0.4' drawdown at 200 gpm and a pump suction elevation setting of 7.8', msl for pump #1 and 7.4' msl for pump #2 (pumps lowered to these settings in July 1968). Bottom of the shaft sump is 3.5' and 4.8' above mean sea level according to Dept. of Water records. There are no horizontal tunnels.

The miscellaneous measurements of a declining basal water head in the County's Kekaha shaft from 11' in 1957 to 7.8' in 1967, verbal reports that Kekaha Sugar Co. in recent years have lowered their pump in Shaft I, and increasing chlorides from 70 to 130 ppm in the County shaft; suggest an overdraft of the ground water body. However, the proposed additional domestic water development of about 400 gpm is very likely an insignificant factor compared to the 20+ MGD pump capacity of the two nearby Kekaha Sugar Co. shafts.

Recommended Well Site. A well site is recommended approximately 1500 ft. mauka of the present County shaft at approximate elevation 160 ft. The site is adjacent to an existing cane haul road in Puaa Valley on non-cultivated pasture land studded with Kiawe trees. Little or no site preparation appears necessary. Two dry tunnels used by Kekaha Sugar Co. to store explosives lie several hundred feet away.

Alternative Site. An alternative site is located adjacent to Kokee Road at approximate elevation 210 feet. This site may or may not have a slight hydrologic advantage in terms of chloride content, but about 4000 feet of new pipeline would be required and the nearest power line lies about 3000 feet away near BM 24 (see attached map).

Note: Kekaha Cane pumps - 94' in 1970 (p. No. 5-1-Pum.)
Well Design. Ground elevation about 160 feet, msl.

Cased Hole, size: 16" dia. minimum
Cased Hole, bottom: -20 ft., msl
Casing, size: 12" I.D. minimum
Casing (bottom 20 ft. of Cor-ten full-flo screen) bottom: -20 ft., msl
Open hole (If required after pumping test): 30 ft. lgth.

Well to be cleaned and developed by bailing 11" dia. with casing hung temporarily 3 ft. above bottom of cased hole. Then casing to be set in permanent position and well pump surged prior to testing. Pumping test requirements, 800 gpm minimum with various rates to 100 gpm.

________________________
DANIEL LUM

Attach.
ROUTE SLIP
DESIGN & CONSTRUCTION BRANCH
Division of Water and Land Development

FROM: _______ DATE: _______ FILE IN: _______

TO: INITIAL: PLEASE:

____ ______ T. FUJII _____ See Me
____ ______ A. CHING _____ Take Action
____ ______ H. F. CHANG _____ Review & Comment
____ ______ G. MORIMOTO _____ Investigate and
____ ______ L. ASARI _____ Report
____ ______ H. MORIMATSU _____ Draft Reply
____ ______ G. MIYASHIRO _____ Acknowledge Rec't
____ ______ C. INATSUKA _____ Type Draft
____ ______ D. EIROKAWA _____ Type Final
____ ______ V. FUNN _____ Xerox
____ ______ Y. SHIROMA _____ Mail
____ ______ J. KASAMOTO
____ ______ J. MENOR
____ ______ L. NANBU

✓ Dan Lum FOR YOUR:

____ ______ R. T. CHUCK _____ Approval
____ ______ W. C. WATSON _____ Signature
____ ______ J. YOSHIMOTO _____ Information

REMARKS:

ELE 1 (10-6-73)
175' to 198' med. fine gray rock
198' to 210' dense gray rock

51KW 10 Kaka Ha Well
MEMORANDUM FOR THE RECORD

FROM: Daniel Lum

SUBJECT: Availability of Sources of Supply for Kekaha Water System, Kauai - 701 Water Study

Basal ground water in permeable Waimea Canyon lava flows represents the existing and only feasible new source of potable water supply for the Kekaha area. No surface water or spring sources are available and all streams in the area commonly have no flows.

The Kekaha basal water body is fresh (35 ppm chlorides), thick (head more than 8 feet above sea level), and protected from sea water intrusion to some unknown degree by a narrow fringe of coastal plain sediments. However, heavy draft (shaft 10, 15 mgd capacity and shaft 11, 4 mgd capacity) has apparently caused some fluctuation in chloride content of the seaward margin of the aquifer. This is reflected in the records of the County's present source (shaft 12), which has an estimated pump capacity of about 230 gpm. The static water level in shaft 12 has declined seasonally from 11 feet in 1957 to 8.2 feet in 1967 (Dept. of Water Supply, personal communication). On the other hand, the chloride content of shaft 12 has increased from 70 ppm in 1963 with an average draft of 140 gpm to 100 ppm during 1964-68 with an average draft of 230 gpm. Subsequently, weekly records have indicated a gradual increase in chloride content from 100 ppm in 1969 to 130 ppm in 1970 with the same pump capacity of 230 gpm. In 1968 the DWS lowered their pumps to 7.8 and 7.4 feet, msl and Kekaha Sugar Co. reportedly lowered their pumps in shaft 10 in recent years.

In August 1970, an exploratory well (Paua Valley Well, see Table) located approximately 1600' mauka of shaft 12 tested the basal-water aquifer and showed a static water level of 9.4 feet, a chloride content of 35-40 ppm, and a yield of 500 gpm at a drawdown of 6 feet. The results suggest that ample fresh water can be developed from the basal water body by wells located 1500 feet or more inland from the mauka edge of the coastal plain sediments.

Recommended well sites to be explored and developed are shown in Figure ____. Site 1 should be drilled and tested first to ascertain aquifer characteristics and safe yield in the area. The best estimate at this writing is that wells with individual pump capacities limited to 500 to 700 gpm can safely develop 2 to 3 mgd on a long-term basis.

DANIEL LUM
ROUTE SLIP
PROJECT DEVELOPMENT BRANCH
Division of Water and Land Development

FROM: 

DATE: ________________

TO INITIAL

--- ROBERT T. CHUCK
--- WALTER O. WATSON, JR.
--- TAKEO FUJII
--- JAMES Y. YOSHIMOTO
--- MANABU TAGOMORI
--- HAROLD SAKAI
--- GEORGE MATSUMOTO
--- GORDON MATSUSHITA
--- BILL KOYANAGI
--- JEAN SIAROT

FOR YOUR:

--- approval
--- signature
--- information

PLEASE:

--- call
--- see me
--- take action
--- review/comment
--- invest./report
--- draft reply
--- ackn. receipt
--- type draft
--- copies
--- type final

cc: 

file in 

REMARKS: Please prepare memos ...
act: Safe yield Warren well
also propagation res.: potential for adjacent
not in prime locale. If no good commun.

No treatment for 225 well.
ROUTE SLIP

PROJECT DEVELOPMENT BRANCH
Division of Water and Land Development

FROM:  

TO  INITIAL  FOR YOUR:

ROBERT T. CHUCK  ___ approval
WALTER O. WATSON, JR.  ___ signature
TAKEO FUJII  ___ information
JAMES Y. YOSHIMOTO
MANABU TAGOMORI
HAROLD SAKAI  ___ call
GEORGE MATSUMOTO  ___ see me
GORDON MATSUSHITA  ✓ take action
BILL KOYANAGI  review/comment
JEAN SIAROT  invest./report
draft reply

PLEASE:
ackn. receipt
type draft
copies
type final
cc:  
mail  
file in  

REMARKS:  Please - memo file; Safe yield. Accomplished for 4th week.
DEPARTMENT OF WATER
COUNTY OF KAUA'I
P. O. BOX 1706   LIHUE, HAWAII 96766

TO Jimmy Yoshimoto

FROM Wayne Hinazumi

SUBJECT Kekaha Deep Well

DATE Oct. 22, 1975

MESSAGE
Kekaha Deep Well information you requested per Walter Briant.

Please contact me if you need any more information.

SIGNED Wayne

REPLY

SIGNED

DATE
<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>F.P.M.</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-22-75</td>
<td>7:00 AM</td>
<td></td>
<td>Pump Running</td>
</tr>
<tr>
<td>7-23-75</td>
<td>10:45 AM</td>
<td></td>
<td>Pump Running</td>
</tr>
<tr>
<td>7-24-75</td>
<td>10:15 AM</td>
<td></td>
<td>Pump Running</td>
</tr>
<tr>
<td>7-25-75</td>
<td>1:30 PM</td>
<td>63.8</td>
<td>Pump Running</td>
</tr>
<tr>
<td>7-26-75</td>
<td>1:30 PM</td>
<td>62.8</td>
<td>Pump Running</td>
</tr>
<tr>
<td>7-27-75</td>
<td>9:00 PM</td>
<td>64.3</td>
<td>Pump Running</td>
</tr>
<tr>
<td>7-28-75</td>
<td>11:30 AM</td>
<td></td>
<td>Pump Running</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pump Running</td>
</tr>
</tbody>
</table>

Average hours of water pumpings: 407.4 hours
From 7-2-75 to 7-30-75 - 115 A.F./week.

115 + 7 x 16.4 hrs/week = 562.480 yd³

Average depth in feet equals 9.500 ft.

= 1.5 ft/pump 10 in.
DEPARTMENT OF WATER
COUNTY OF KAUAI

JOB NO. 51-KW-6

AS BUILT

DRILLING 12" WELL

KEKAHA WATER SYSTEM
KEKAHA, KAUAI,

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

REDUCED PLANS
SCALES REDUCED ACCORDINGLY

FABRICATED CEMENT
BASKET DETAIL

SECTION THRU WELL
NOT TO SCALE
<table>
<thead>
<tr>
<th>Time</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 pm</td>
<td>9.25</td>
</tr>
<tr>
<td>4 pm</td>
<td>9.25</td>
</tr>
<tr>
<td>11 pm</td>
<td>8.95</td>
</tr>
<tr>
<td>8</td>
<td>9.25</td>
</tr>
<tr>
<td>10</td>
<td>8.85</td>
</tr>
<tr>
<td>12 MN</td>
<td>8.95</td>
</tr>
<tr>
<td>2</td>
<td>8.95</td>
</tr>
<tr>
<td>4 am</td>
<td>8.75</td>
</tr>
<tr>
<td>10 am</td>
<td>8.95</td>
</tr>
<tr>
<td>8 am</td>
<td>8.15</td>
</tr>
<tr>
<td>10 am</td>
<td>8.15</td>
</tr>
<tr>
<td>12 N</td>
<td>1.65</td>
</tr>
<tr>
<td>2</td>
<td>7.15</td>
</tr>
<tr>
<td>4</td>
<td>6.65</td>
</tr>
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<td>6</td>
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<td>8</td>
<td>6.45</td>
</tr>
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<td>10</td>
<td>6.55</td>
</tr>
<tr>
<td>12 MN</td>
<td>6.65</td>
</tr>
<tr>
<td>2 a</td>
<td>6.45</td>
</tr>
<tr>
<td>4 a</td>
<td>6.55</td>
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<tr>
<td>6 a</td>
<td>6.55</td>
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<tr>
<td>8 a</td>
<td>6.25</td>
</tr>
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<td>10 a</td>
<td>6.35</td>
</tr>
<tr>
<td>12 N</td>
<td>6.55</td>
</tr>
<tr>
<td>2 p</td>
<td>6.25</td>
</tr>
<tr>
<td>4 p</td>
<td>6.25</td>
</tr>
<tr>
<td>6 p</td>
<td>6.25</td>
</tr>
</tbody>
</table>

Sunday 7 Jan 93
3:00 - 3:55 Cloud, 3:57 PM... 9 am today
PUMPING TEST RECORD
for
KEKAAKA

(name) Well (No.)

KAUA Island E- K- W- C Project or Job No. AUG 25 1970

Description of Well--
1. Elevation: ground surface 124 ft., top of casing 130 ft., referenced to 3/4 PIPE 180 benchmark
2. Total depth of well 210 ft.; or ft. elevation, msl
3. in. solid casing to 190 ft. depth, perforated to 20 ft. depth
ground surface, top of casing; or 11 ft. elevation, msl measured ___ method

Description of Pump and Pump Setting--
5. ___ type pump with ____ stage bowl assembly
6. Gasoline ___ diesel, electric, power with ___ horsepower
7. Shaft speed: ___ rpm at gpm flow
8. Depth of pump intake: 25 2 ft. below 1970; or ___ ft. elevation, msl
9. Depth of airline bottom: 50 2 ft. below 1970; or 5 2 ft. elevation, msl
10. Center of gage: ___ ft. elevation, msl. Flow measured with ___ method
11. Test conducted by _____________________________________________________

<table>
<thead>
<tr>
<th>Date &amp; Pumping Time</th>
<th>Airline (feet)</th>
<th>Drawdown (feet)</th>
<th>Chlorides (ppm)</th>
<th>Temperature (°F)</th>
<th>Cond. x10 (mmhgs, 25°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/25/70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09:50 Static</td>
<td>18.05</td>
<td>5.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09:55</td>
<td>18.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09:59</td>
<td>18.15</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00 Start Pump</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:15 Adjust K</td>
<td>13.25</td>
<td>5.30</td>
<td>26</td>
<td>75.5</td>
<td>310 x 1</td>
</tr>
<tr>
<td>10:20</td>
<td>12.65</td>
<td>5.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:25</td>
<td>12.05</td>
<td>5.95</td>
<td></td>
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<tr>
<td>10:30</td>
<td>10.50</td>
<td>7.15</td>
<td>76</td>
<td>290 x 1</td>
<td></td>
</tr>
<tr>
<td>10:35</td>
<td>10.00</td>
<td>7.35</td>
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### PUMPING TEST RECORD

**for**

KAAUA

Well (No.)

KAAUA Island Project or Job No. 5/69/25 1970

**Description of Well**

1. Elevation: ground surface ____ ft., top of casing ____ ft., bottom ____ ft., referenced to ____ benchmark

2. Total depth of well ____ ft.; or ____ ft. elevation, msl

3. ____ in. solid casing to ____ ft. depth, perforated to ____ ft. depth

4. Static water level on ____ ft. below ground surface, top of casing; or ____ ft. elevation, msl measured ____ method

**Description of Pump and Pump Setting**

5. ____ type pump with ____ stage bowl assembly

6. Gasoline diesel, electric, power with ____ horsepower

7. Shaft speed: ____ rpm at ____ gpm flow

8. Depth of pump intake: ____ ft. below ____; or ____ ft. elevation, msl

9. Depth of airline bottom: ____ ft. below ____; or ____ ft. elevation, msl

10. Center of gage: ____ ft. elevation, msl. Flow measured with ____

11. Test conducted by ____________________________________________________

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<th>Drawdown (feet)</th>
<th>Chlorides (ppm)</th>
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PUMPING TEST RECORD

for

Well (name)  (No.)

KALALI Island  B-1214-C Project or Job No. AUG 1970

Description of Well--
1. Elevation: ground surface ___ ft., top of casing ___ ft., rotary ___ ft., referenced to ___ benchmark
2. Total depth of well ___ ft.; or ___ ft. elevation, msl
3. ___ in. solid casing to ___ ft. depth, perforated to ___ ft. depth
4. Static water level on 19: ___ ft. below ground surface, top of casing; or ___ ft. elevation, msl measured ___ method

Description of Pump and Pump Setting--
5. ___ type pump with ___ stage bowl assembly
6. Gasoline diesel, electric, power with ___ horsepower
7. Shaft speed: ___ rpm at ___ gpm flow
8. Depth of pump intake: ___ ft. below ___; or ___ ft. elevation, msl
9. Depth of airline bottom: ___ ft. below ___; or ___ ft. elevation, msl
10. Center of gage: ___ ft. elevation, msl. Flow measured with ___.
11. Test conducted by ____________________________________________________

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<th>Airline (feet)</th>
<th>Drawdown (feet)</th>
<th>Chlorides (ppm)</th>
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*Note: Flow measured with*
PUMPING TEST RECORD

for

Well

(name) (No.)

KALUA Island Project or Job No. Aug 26 1970

Description of Well--
1. Elevation: ground surface___ ft., top of casing____ ft., referenced to ____ ft. elevation, msl
2. Total depth of well____ ft.; or ____ ft. elevation, msl
3. ____ in. solid casing to ____ ft. depth, perforated to ____ ft. depth
4. Static water level on ____ 19: ____ ft. below ground surface, top of casing; or ____ ft. elevation, msl

Description of Pump and Pump Setting--
5. ____ type pump with ____ stage bowl assembly
6. Gasoline, diesel, electric, power with ____ horsepower
7. Shaft speed: ____ rpm at ____ gpm flow
8. Depth of pump intake: ____ ft. below ____; or ____ ft. elevation, msl
9. Depth of airline bottom: ____ ft. below ____; or ____ ft. elevation, msl
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<th>Temperature (°F)</th>
<th>Cond. (mmhos, 25°C)</th>
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Water on pump not running.
PUMPING TEST RECORD
for

[Name] Island

Project or Job No. 1971

Description of Well--
1. Elevation: ground surface __ ft., top of casing __ ft., table __ ft.,
   referenced to __ benchmark
2. Total depth of well __ ft.; or __ ft. elevation, msl
3. ____ in. solid casing to __ ft. depth, perforated to __ ft. depth
4. Static water level on __ ft. below ground surface, top of casing; or __ ft. elevation, msl
   measured __________ method

Description of Pump and Pump Setting--
5. ______ type pump with ___ stage bowl assembly
6. Gasoline diesel, electric, power with ____ horsepower
7. Shaft speed: ______ rpm at ______ gpm flow
8. Depth of pump intake: ______ ft. below _____; or _____ ft. elevation, msl
9. Depth of airline bottom: _____ ft. below _____; or _____ ft. elevation, msl
10. Center of gage: _____ ft. elevation, msl. Flow measured with ______

11. Test conducted by ________________________________________________________

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<th>Date &amp; Time</th>
<th>Pumping rate (gpm)</th>
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<th>Drawdown (feet)</th>
<th>Chlorides (ppm)</th>
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SHEET 5 OF 11 SHEETS
PUMPING TEST RECORD
for

(name) Well (No.)

KAUAI Island 5L KW C Project or Job No. 1970

Description of Well--
1. Elevation: ground surface ____ ft., top of casing ____ ft., table ____ ft., referenced to ____ benchmark
2. Total depth of well ____ ft.; or ____ ft. elevation, msl
3. ____ in. solid casing to ____ ft. depth, perforated to ____ ft. depth
4. Static water level on ____ ft. below ground surface, top of casing; or ____ ft. elevation, msl measured ______ method

Description of Pump and Pump Setting--
5. ____ type pump with ____ stage bowl assembly
6. Gasoline diesel, electric, power with ____ horsepower
7. Shaft speed: ____ rpm at ____ gpm flow
8. Depth of pump intake: ____ ft. below ____; or ____ ft. elevation, msl
9. Depth of airline bottom: ____ ft. below ____; or ____ ft. elevation, msl
10. Center of gage: ____ ft. elevation, msl. Flow measured with ____
11. Test conducted by ________________________________

<table>
<thead>
<tr>
<th>Date &amp; Time</th>
<th>Pumping rate (gpm)</th>
<th>Airline (feet)</th>
<th>Drawdown (feet)</th>
<th>Chlorides (ppm)</th>
<th>Temperature (°F)</th>
<th>Conductivity (mmhos, 25°C)</th>
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<td>38.8</td>
<td>230 x 1</td>
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5/12 Switch ENGINE
1000 Adjust PUMPING RATE To 700 GPM
12/2 6.15 11.30
12/2 5.50 12.35
12/2 4.1 14.05
**PUMPING TEST RECORD**

For

KELALA Wa (name) Well (No.)

**Description of Well**

1. Elevation: ground surface ____ ft., top of casing ____ ft., table ____ ft., referenced to benchmark.
2. Total depth of well ____ ft.; or ____ ft. elevation, msl.
3. ____ in. solid casing to ____ ft. depth, perforated to ____ ft. depth.
4. Static water level on 19____ ft. below ground surface, top of casing; or ____ ft. elevation, msl.

**Description of Pump and Pump Setting**

5. ____ type pump with ____ stage bowl assembly.
6. Gasoline, diesel, electric, power with ____ horsepower.
7. Shaft speed: ____ rpm at ____ gpm flow.
8. Depth of pump intake: ____ ft. below ____; or ____ ft. elevation, msl.
9. Depth of airline bottom: ____ ft. below ____; or ____ ft. elevation, msl.
10. Center of gage: ____ ft. elevation, msl. Flow measured with ____.

**Date & Pumping Rate**

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<th>Pumping Rate (gpm)</th>
<th>Airline (feet)</th>
<th>Drawdown (feet)</th>
<th>Chlorides (ppm)</th>
<th>Temperature (°F)</th>
<th>Conductance (mhos, 25°C)</th>
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**Adjust Pumping Rate to 66 GPM**

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**Pumping Rate 70 518 GPM**

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<th>Conductance (mhos, 25°C)</th>
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PUMPING TEST RECORD
for

KE'ELAHAN
(name)

Well
(No.)

Description of Well--
1. Elevation: ground surface ___ ft., top of casing ___ ft., table ___ ft., referenced to ___ benchmark
2. Total depth of well ___ ft.; or ___ ft. elevation, msl
3. ___ in. solid casing to ___ ft. depth, perforated to ___ ft. depth
4. Static water level on ___ ft. below ground surface, top of casing; or ___ ft. elevation, msl measured ___ method

Description of Pump and Pump Setting--
5. ____ type pump with ____ stage bowl assembly
6. Gasoline diesel, electric, power with ____ horsepower
7. Shaft speed: ___ rpm at ___ gpm flow
8. Depth of pump intake: ___ ft. below ___; or ___ ft. elevation, msl
9. Depth of airline bottom: ___ ft. below ___; or ___ ft. elevation, msl
10. Center of gage: ___ ft. elevation, msl. Flow measured with ___

11. Test conducted by

<table>
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<th>Date &amp; Time</th>
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<th>Airline (feet)</th>
<th>Drawdown (feet)</th>
<th>Chlorides (ppm)</th>
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**SMALL AMOUNT OF WATER RUNNING ON PUMP**

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PUMPING TEST RECORD

for

[Blank] Well [Blank]

Kauai Island 51-KW-6 Project or Job No. AUG. 29 1970

Description of Well--
1. Elevation: ground surface ____ ft., top of casing ____ ft., rotary ____ ft., referenced to ____ benchmark
2. Total depth of well ____ ft.; or ____ ft. elevation, msl
3. ____ in. solid casing to ____ ft. depth, perforated to ____ ft. depth
4. Static water level on ____ ft. below ground surface, top of casing; or ____ ft. elevation, msl measured __________ method

Description of Pump and Pump Setting--
5. ______ type pump with ____ stage bowl assembly
6. Gasoline diesel, electric, power with ____ horsepower
7. Shaft speed: ______ rpm at ______ gpm flow
8. Depth of pump intake: ____ ft. below ____; or ____ ft. elevation, msl
9. Depth of airline bottom: ____ ft. below ____; or ____ ft. elevation, msl
10. Center of gage: ____ ft. elevation, msl. Flow measured with ______
11. Test conducted by ________________________________

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<th>Date &amp; Time</th>
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<th>Airline (feet)</th>
<th>Drawdown (feet)</th>
<th>Chlorides (ppm)</th>
<th>Temperature (°F)</th>
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SHEET 9 OF 12 SHEETS
PUMPING TEST RECORD
for

KAAWAI
(name)

Well
(No.)

KAAWAI Island 51-KW-6 Project or Job No. AUG. 27, 1970

Description of Well--
1. Elevation: ground surface ___ ft., top of casing ___ ft., table ___ ft., referenced to ___ ft. elevation, msl.
2. Total depth of well ___ ft.; or ___ ft. elevation, msl.
3. ____ in. solid casing to ___ ft. depth, perforated to ___ ft. depth.
4. Static water level on ___ 19 ft. below ground surface, top of casing; or ___ ft. elevation, msl.

Description of Pump and Pump Setting--
5. ____ type pump with ____ stage bowl assembly.
6. Gasoline diesel, electric, power with ____ horsepower.
7. Shaft speed: ____ rpm at ___ gpm flow.
8. Depth of pump intake: ___ ft. below ___; or ___ ft. elevation, msl.
9. Depth of airline bottom: ___ ft. below ___; or ___ ft. elevation, msl.

Test conducted by
_________________________________________________

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<th>Pumping rate (gpm)</th>
<th>Airline (feet)</th>
<th>Drawdown (feet)</th>
<th>Chlorides (ppm)</th>
<th>Temperature (°F)</th>
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SHEET 10 OF 11 SHEETS
# Pumping Test Record

**Location:** KEKAAH

**Well:** KAUAI 

**Project or Job No:** E1-KW-C 

## Description of Well

1. **Elevation:** ground surface __ ft., top of casing __ ft., table __ ft., referenced to __ benchmark.
2. **Total depth of well** __ ft.; or __ ft. elevation, msl.
3. **In.** solid casing to __ ft. depth, perforated to __ ft. depth.
4. **Static water level on** __ 19__; or __ 2 ft. below ground surface, top of casing; or __ ft. elevation, msl measured __ method.

## Description of Pump and Pump Setting

5. **Type** pump with __ stage bowl assembly.
6. **Shaft speed:** rpm at __ gpm flow.
7. **Depth of pump intake:** __ ft. below __; or __ ft. elevation, msl.
8. **Depth of airline bottom:** __ ft. below __; or __ ft. elevation, msl.
9. **Center of gage:** __ ft. elevation, msl. Flow measured with __.

## Test Conducted by

________________________________________

### Date & Pumping Rate

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<tr>
<th>Date &amp; Time (gpm)</th>
<th>Airline Rate (feet)</th>
<th>Drawdown (feet)</th>
<th>Chlorides (ppm)</th>
<th>Temperature (°F)</th>
<th>Conductivity (mmhos, 25°C)</th>
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**10:00 AM - STOP PUMPING**

*Sheet 1 of 1 Sheets*
PUMPING TEST RECORD

for

KEKAHA

Well

KALUA Island 51-KW-C Project or Job No. AUG 21 1976

Description of Well--
1. Elevation: ground surface ___ ft., top of casing ___ ft., rotary table ___ ft., referenced to benchmark
2. Total depth of well ___ ft.; or ___ ft. elevation, msl
3. ___ in. solid casing to ___ ft. depth, perforated to ___ ft. depth
4. Static water level on ___ 19 ft. below ground surface, top of casing; or ___ ft. elevation, msl measured ___ ___ method

Description of Pump and Pump Setting--
5. ___ type pump with ___ stage bowl assembly
6. Gasoline; diesel; electric; power with ___ horsepower
7. Shaft speed: ___ rpm at ___ gpm flow
8. Depth of pump intake: ___ ft. below ___; or ___ ft. elevation, msl
9. Depth of airline bottom: ___ ft. below ___; or ___ ft. elevation, msl
10. Center of gage: ___ ft. elevation, msl. Flow measured with ___

11. Test conducted by

<table>
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<tr>
<th>Date &amp; Pumping Time</th>
<th>Airline Rate (gpm)</th>
<th>Airline Drawdown (feet)</th>
<th>Chlorides (ppm)</th>
<th>Temperature (°F)</th>
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Reduced Pumping Rate to 5/5.00 gallons/min.

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Note: STOP PUMPING
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for

KAKAIMA Well

KACIMI Island 51-KW-6 Project or Job No. LUCY 1970

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for

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- **Project or Job No.**: 19

**Well (No.)**

Titrations conducted by

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#### for

**Well (No.)**

**Island**

**Project or Job No.**

Titrations conducted by

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*Note: All values are in ppm.*
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**For**

**Well**

**Kauai Island** 51-KW-6  Project or Join No. A917  01  1970

**Titrations conducted by**

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CHLORIDE TITRATION RECORD
for
KEKAHA Well (No.)
KAUAʻI Island 51-KX1-6 Project or Job No. AUG 31 1970

Titrations conducted by

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</table>
Mr. Robert T. Chuck  
Dept. of Land and Natural Resources  
P. O. Box 373  
Honolulu, Hawaii 96809

Dear Bob:

Enclosed are results of analyses from your Kekaha well drilled recently on Kauai. The sample was delivered to our laboratory on September 4, 1970. If you have any questions, please call us.

Sincerely yours,

Mearle M. Miller  
District Chief

Enclosure
### Analyses by Geological Survey, United States Department of the Interior (milligrams per liter)

<table>
<thead>
<tr>
<th>Laboratory Number</th>
<th>HAW 1278</th>
<th>HAW 0945</th>
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<tr>
<td>Date of collection</td>
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<td>Silica (SiO₂)</td>
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<td>Manganese (Mn)</td>
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<td>Calcium (Ca)</td>
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<td>Nitrate (NO₃)</td>
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**Dissolved solids**
- Residue on evaporation at 180°C: 275
- Hardness as CaCO₃: 95
- Noncarbonate hardness as CaCO₃: 0
- Alkalinity as CaCO₃: 138
- Specific conductance (micromhos at 25°C): 418
- pH: 7.6
- Color: --
- Carbon dioxide (CO₂) calculated: --
- Temperature (°C): 24

**Additional Information**
- HAW-1278: Kekaha Well, Kauai, Sample collected after pumping 144 hrs. at 510 GPM, Depth 210 ft., water level 8.7 ft. collected by Joe Menor.
Division of Water and Land Development
Department of Land and Natural Resources
State of Hawaii
P. O. Box 373
Honolulu, Hawaii 96809

Attention: Mr. Robert T. Chuck, Manager-Chief Engineer

Gentlemen:

We enclose, for your files, a copy of our drill log for the well recently completed at Kekaha, Kauai, for your office under your Job No. 51-KW-6.

Very truly yours,

Loran H. Runnells
District Manager

LHR:hs
Encl
TO: H. F. Chang
FROM: T. Nishi
SUBJECT: Kekaha well water, State Car.
MESSAGE: Kekaha well water reading from Kekaha Sugar Mill Lab. is 2.24 gr/lt., which is equal to 40 ppm. Based on this level I did not send sample to lab.

State car is running okay today, so I will not report it. I will wait till it gives trouble again.

Top 4 ppm
4:59 ppm

Signed: T. Nishi
KELAH WEB

DOWED DRILLED IN AUGUST, 1973

Ground E.L. = 193.43'