FALKO PARTNERS, LLC
ENGINEERING REPORT FOR NEW POTABLE WATER SOURCES FOR KAHU'AINA PLANTATION
WAIPAKE, KILAUEA, KAULAI, HAWAII

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS • SURVEYORS
HONOLULU • WAILUKU, HAWAII

LOCATION MAP

EXHIBIT 1
**CONCRETE PAD**

- **Top of Pad Elev.** = 289.9
- **Ground Elev.** = 288.98 (299.31)\(^1\)

**Steel Solid Casing**

- **6" I.D., 1/4" Thick**

**Well Bore**

- **13" Dia.**

**Cement Grouted Annulus**

- **3"**

**Grout**

- **Bottom of Grout Elev.** = (-)0.7 MSL

**Water Level**

- **Elev.** = 4.74 MSL

**Screened Casing**

- **Top of Screened Casing Elev.** = (-)100.7 MSL
- **Bottom of Screened Casing Elev.** = (-)180.7 MSL

**Well Bore**

- **Bottom of Well Elev.** = (-)185.7 MSL

**NOTES:**

1. Original ground surface, per well completion report.
2. Modified depth based on finished grade.
3. Depth based on original ground surface, per well completion report.

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**FALKO PARTNERS, LLC**

**ENGINEERING REPORT FOR NEW POTABLE WATER SOURCES FOR KAHU'AINA SUBDIVISION**

**ENGINEERS, SURVEYORS**

**AUSTIN, TSUTSUMI & ASSOCIATES, INC.**

**HONOLULU, HAWAI'I**

**WELL NO. 1 SECTION**

**EXHIBIT 8**
NOTES:
1 ORIGINAL GROUND SURFACE, PER WELL COMPLETION REPORT.
2 MODIFIED DEPTH BASED ON FINISHED GRADE.
3 DEPTH BASED ON ORIGINAL GROUND SURFACE, PER WELL COMPLETION REPORT.
CONCRETE PAD

TOP OF PAD ELEV. = 289.9
GROUND ELEV. = 289.57

6" I.D., 1/4" THICK STEEL SOLID CASING

13" DIA. WELL BORE

3" CEMENT GROUTED ANNULUS

BOTTOM OF GROUT ELEV. = 34.57 MSL

WATER LEVEL ELEV. = 4.64 MSL

TOP OF PERFORATED CASING ELEV. = (-)30.43 MSL

BOTTOM OF PERFORATED CASING
BOTTOM OF WELL ELEV. = (-)110.43 MSL

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EXHIBIT
WELL NO. 3 SECTION
REFERENCE: DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

NOTE: MAP REVISED BY ATA TO REFLECT MOST RECENT WELL INFORMATION.

APPROXIMATE SCALE: 1" = 1000'

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WATER SOURCES FOR KAHU'AINA PLANTATION
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MAP OF EXISTING WELLS
LEGEND
- Properties with installed septic tanks
- Properties with plans for septic tanks, not yet approved for final use.
- Previously cultivated sugar cane
- Existing and proposed nursery
- Existing pasture

SCALE: 1" = 1000'

REF: NATIONAL GEOGRAPHIC HAWAII SEAMLESS USGS TOPOGRAPHIC MAPS ON CD ROM, ANAHOLA HI, 1996