<table>
<thead>
<tr>
<th>LOCALITY:</th>
<th>Molokai</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Kolo</td>
</tr>
</tbody>
</table>
DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET "D",
of
KOLO HARBOR

"Molokai Island, Terr. of Hawaii.
Scale = 1 : 5000

R.W. Woodworth, Jr., H&G.E.
Chief of Party.

PROJECT: Surveys of Anchorages.

INSTRUCTIONS: Nov. 26, 1924.
Mar. 31, 1925.
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
WASHINGTON  November 23, 1925.

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 4416
Kolo Harbor, Molokai, Hawaiian Islands

Surveyed in 1925.

Instructions dated November 26, 1924, March 31, 1925.

Chief of Party, R. W. Woodworth.

Surveyed and inked by P. W. Malnate.

1. The records conform to the requirements of the General Instructions.
2. The plan and extent of the survey satisfy the specific instructions.
3. The usual field drafting was done by the field party and was well executed.
4. A satisfactory junction was effected with the old survey (T. 3526)
   It is to be noted in this connection that Q At which is the same point as Q At on T. 3526 was located about 32 meters to the westward of the old location. This discrepancy could not be accounted for by the Chief of Party, who was consulted relative thereto when in the Office. Inasmuch as the discrepancy was noticed in the field and the new work was checked to pick up any accidental errors, it is reasonably safe to accept the new location as correct.
5. The character and scope of the surveying are satisfactory.
DESCRIPTION of LOCALITY: Kolo, 10 miles west from Kaunakakai, is a shallow, semi-protected harbor developed by Libby-McNeill-Libby to handle freight and pineapple shipments of their plantation on SW Molokai.

The wharf is a heavily built wooden structure, having a road constructed for heavy truck traffic between it and the plantation on the summit of Mauna Loa. The only buildings at Kolo are those of the construction camp.

The long sand beach is backed with a dense growth of algeroba trees extending up the gentle hill slopes for a short distance.

FUTURE CHANGES: It is likely that the present road will be changed in back of the wharf, so as to eliminate a steep grade existing at present. To do this a small cliff will be blown out and the present approach to the wharf continued around the beach to the eastward.

The position of the range lights is to be changed to bring them further apart and to a greater elevation, so that they will be visible to the small towboat as it is hauling the barges out of the harbor. At present the height of the barge obscures both ranges for the pilot of the towboat.

If the cultivation of pineapples is successful for the next three years or so, a breakwater will be built from shore, out to, and along, the shallow reef. This is needed to shut off the heavy swell within the harbor.

SURVEY METHODS: Plane table traverse was run from triangulation station 'Try' on the west to station 'Wharf', obtaining a 6 meter closure which was distributed along the line run. It being impossible to locate a triangulation station on the easterly extremity of the shoreline desired, a check run was made from station 'Pod' to 'Wharf', giving a 3 meter error which was distributed along the run.

Respectfully submitted,

R.W. Woodward, Jr., H&G, En.
Chief of Party
1925.
PLANE TABLE POSITIONS

Topographic Sheet "D".

Koloa
<table>
<thead>
<tr>
<th>OBJECT -- Description</th>
<th>Latitude D.M.</th>
<th>Longitude D.P.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Try</strong> -- A 10' white-slatted tripod, marked by 1&quot; pipe driven in.</td>
<td>21 05 1074</td>
<td>157 12 1426</td>
</tr>
<tr>
<td><strong>At</strong> ---- A 1915 topo.whitepainted cliff.</td>
<td>21 05 1130</td>
<td>157 12 412</td>
</tr>
<tr>
<td><strong>Ko</strong> ---- An 8' white-slat triangle on the beach.</td>
<td>21 05 1115</td>
<td>157 12 437</td>
</tr>
<tr>
<td><strong>Rear</strong> -- A wooden structure carrying Range a light.</td>
<td>21 05 1202</td>
<td>157 11 1673</td>
</tr>
<tr>
<td><strong>Front</strong> -- &quot; &quot; &quot; &quot;</td>
<td>21 05 1172</td>
<td>157 11 1676</td>
</tr>
<tr>
<td><strong>Lot</strong> -- Similar to &quot;Ko&quot;.</td>
<td>21 05 1207</td>
<td>157 11 446</td>
</tr>
<tr>
<td><strong>Pod</strong> -- &quot; &quot; &quot;Try&quot;.</td>
<td>21 05 1223</td>
<td>157 10 1465</td>
</tr>
<tr>
<td><strong>Pig</strong> -- &quot; &quot; &quot;Ko&quot;.</td>
<td>21 05 1245</td>
<td>157 11 811</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Latitude</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>44</td>
<td>A 10' white-dotted tripod, 21 05 1074</td>
<td>157 12 1426</td>
</tr>
<tr>
<td></td>
<td>held by 10' pipe driven in.</td>
<td>711</td>
</tr>
<tr>
<td>11</td>
<td>A 10'5&quot; two-white-painted cliff, 21 05 1130</td>
<td>157 12 412</td>
</tr>
<tr>
<td></td>
<td>715</td>
<td>1320</td>
</tr>
<tr>
<td>33</td>
<td>In 11' white-slat triangle on    21 05 1115</td>
<td>157 12 437</td>
</tr>
<tr>
<td></td>
<td>the beach.</td>
<td>730</td>
</tr>
<tr>
<td>7000</td>
<td>A wooden structure carrying     21 05 1202</td>
<td>157 11 1673</td>
</tr>
<tr>
<td></td>
<td>light.</td>
<td>643</td>
</tr>
<tr>
<td>32</td>
<td>&quot; &quot;</td>
<td>673</td>
</tr>
<tr>
<td>36</td>
<td>Similar to &quot;No&quot;.</td>
<td>21 05 1207</td>
</tr>
<tr>
<td></td>
<td>638</td>
<td>1386</td>
</tr>
<tr>
<td>32</td>
<td>&quot; &quot; &quot;Try&quot;.</td>
<td>21 05 1202</td>
</tr>
<tr>
<td></td>
<td>623</td>
<td>267</td>
</tr>
<tr>
<td>32</td>
<td>&quot; &quot; &quot;Yes&quot;.</td>
<td>21 05 1245</td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>921</td>
</tr>
</tbody>
</table>
RECOVERY NOTES TOPO STATIONS

SHEET 4116

TRY Not searched for
KE do
PIG do
POD do
LOT do
FRONT and REAR Ranges recovered as described.

AT see Sheet 3526

P.L.B.

U. S. C. & G. S. S. PIONEER, O. W. Swainson, Chief of Party,

1930-1931
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No [P] 4116

State . Territory of Hawaii

General locality . Molokai Island

Locality . Kolo Harbor

Chief of party . R.F. Woodworth

Surveyed by . T.F. Malnate

Date of survey . March 1923

Scale . 1 : 5000

Heights in feet above . MHT

Contour interval . . . . feet.

Inked by . TFM . . . . Lettered by . TFM

Records accompanying sheet (check those forwarded): Photographs,

*Descriptive report, *Horizontal angle books, *Field computations,

Data from other sources affecting sheet . . . . . . . .

Remarks: