

4.11.2 Bottles

T-116

Seven glass fragments from seven bottles were collected from T-116, Stratum Ij (Table 84). These consist of three beverage bottles, one beer bottle, one soda bottle, one sauce bottle, and one medicine vial. Of the three beverage bottles, two have an applied finish (1820–1890) and one has a tooled finish (1880–1920). The amber soda bottle is a ginger ale by the Vincent Hathaway Co. of Boston, in business around ca. 1870 to 1900 (The Commissioners of Patents' Journal 1872:1641). The beer bottle was manufactured by the Linden Glass Co. of St. Louis, Missouri, who used the base mark on the collected bottle from 1886 to 1890. The mold-blown Lea and Perrins Worcestershire sauce bottle dates from 1877, when the firm of John Duncan & Sons (JDS on base) became the American agents to distribute the product to 1890, when the bottles began to be made by semi-automatic and later automatic bottle machines (BLM/SHA 2013). Therefore, the bottles from this test excavation all seem to date to the last decades of the nineteenth century, and the variety suggests domestic refuse.

T-117

Twenty-four glass fragments from a minimum of 15 bottles were collected from T-117, Stratum Ic (Table 85). Only two bottles are complete, a medicine vial and a dark olive spirits bottle; the remaining material consists of fragments that cannot be narrowly dated. Three bottles were made in a turn mold, used from ca. 1860 to the 1920s, and four clear bottle fragments post-date the 1870s based on color. The bottles likely all date from the mid-nineteenth century to the first decades of the twentieth century.

T-118

Nine glass fragments from a minimum of eight bottles and one lid were collected from T-118, Strata Ib (2 bottles) and Ic (6 bottles) (Table 86). The two bottles from Stratum Ib are mold-blown bottles but cannot be dated further. The bottles from Stratum Ic consist of a cone-shaped ink bottle, a milk glass jar lid, a medicine glass lid, and four bottles of unknown function. Three bottles were made in a two-piece cup mold, the most common type of mold used from the 1870s on. Cone-shaped or conical ink bottles were made as early as the 1830s, but were the dominant form from the 1880s to the 1910s (BLM/SHA 2013).

T-120B

One complete bottle and 21 fragments from a minimum of six bottles were collected from T-120B (Table 87). A complete clear cologne bottle from the post-1870s period (based on color) was collected from the backdirt pile. From Strata Ic-II, two dark olive green and one light green spirits bottles and three beverage bottles of unknown contents were collected. A bottle with a two-piece cup mold probably post-dates the 1870s. One of the spirits bottles pre-dates the 1890s.

T-121

One cobalt blue and one amber bottle fragment were collected from T-121, Stratum Ic (Table 88). Both bottles were made in a two-piece cup mold, the dominant form after the 1870s, and one bottle has an applied lip finish, commonly used from the 1820s to the 1890s.

T-123

One complete case gin bottle in 17 fragments was collected from T-123, Stratum Ie (Table 89). The bottle is asymmetrical and may be mouth-blown or made in a dip-mold. Case gin bottles exported from other countries, especially the Netherlands, continued to be mouth-blown or made in a dip-mold into the twentieth century (BLM/SHA 2013).

T-124

Three glass fragments from one amber and two olive bottles were collected from T-124, Stratum Id (Table 90). One of the olive bottles was made in a turn mold, used from 1860 to the 1920s.

T-125

Eighteen glass fragments from a minimum of ten bottles were collected from T-125, six bottles from Stratum Id and four bottles from Stratum Ie (Table 91). The fragments are generally small and exhibit little evidence of manufacturing technique. One clear glass bottle fragment can be dated to post-1870 based on the color, while six olive glass bottle fragments (from at least one bottle) are dated to post-1800.

T-126

One Carter's cone-shaped ink bottle and two fragments from a black glass spirits bottle were collected from T-125, Stratum Ic (Table 92). Cone-shaped or conical ink bottles were the dominant form from the 1880s to the 1910s, although they were made as early as the 1830s (BLM/SHA 2013 Diagnostic Shapes). The William Carter Company began as a stationary store in Boston in 1858, but began to make their own ink products during the Civil War. The company was acquired by the Dennison Company in 1975, who still market a few ink-related items under the Carter's name. During the twentieth century, it was probably one of the largest, if not the largest, ink producer in the United States, selling millions of bottles a year (Faulkner 2003:41). The black glass wine/beer bottle was made by R. Cooper & Co. at the Portobello Glass Works in Scotland. This company made bottles between 1866 and 1928; the black glass and separate base mold plate date this bottle to the nineteenth century, so the bottle was made between 1866 and 1900 (Museum Victoria 2013).

T-127

Three fragments from two bottles and one white milk jar were collected from T-127, Stratum Ic (Table 93). One black glass bottle can be dated to pre-1890s and a dark olive bottle with a tooled lip can be dated to the 1880s-1920s.

T-128

One aqua bottle base fragment was collected from T-128, Stratum Ia (Table 94). The bottle was made in a two-piece cup mold, the dominant mold used from the 1870s to the present. Some cup molds, however, were used as early as the 1860s.

T-129

Four complete bottles were collected from T-129, Stratum II, and one complete bottle and one medicine vial fragment were collected from a utility feature in T-129 (Table 95). The four bottles

from Stratum II are olive green to dark olive spirits bottles, all of which were made in a turn mold, used from the 1860s to the 1920s. The bottle in the utility feature is an aqua boot/leather polish bottle from the Frank Miller Co., New York, which was established in 1838 (Edwards and Critten 1885:146). Although the advertisements for this polish emphasize its use as a boot and shoe polish, it could also be used on any type of leather, and may have been used at stables to polish horse or mule harness gear. Similar polish bottles also were found in T-132, T-140, and T-202 of West Kaka'ako.

T-130

Six complete bottles and two fragments from two bottles were collected from T-130, Stratum Ii, SIHP #-7189 (Table 96). One amber beer bottle from the Buffalo Brewing Co., of Sacramento, California can be dated by the base mark used by the San Francisco and Pacific Glass Works from 1876-1902. An aqua bottle embossed on the base was probably made by the Belleville Glass Co., Belleville, Illinois, which operated from 1882-1886. A medicine bottle for Dr. Jayne's Liniment, established by at least 1867, and advertised into the 1920s and 1930s (Fike 1987:135) was probably made from the 1870 to 1920s, based on the tooled lip finish. A soda bottle from Hollister & Co., Honolulu is similar to bottles pictured in Elliott and Goulds' (1998:112-113) Hawaiian bottle book, which they date from the 1890s to the 1910s. In this assemblage, one bottle is a mold-blown bottle with an applied lip finish (used from 1820 to 1890s) and five are mold-blown bottles with a tooled lip finish (used from 1880s to 1920s).

T-131

Twelve bottles/bottle fragments from a minimum of 11 bottles were collected from T-131, Stratum Id (Table 97). The complete bottles consist of three spirits, one Lea & Perrins sauce, one beverage with a blob finish, one extract jar, and one medicine vial. Also identified are fragments of a soda bottle embossed Hollister & Co., Honolulu, and fragments of a beverage bottle embossed by the Nuttal & Co., Lancashire, England. Milk glass jars such as the one embossed "ARMOUR & CO/PACKERS/CHICAGO" likely contained beef extract or lard (Zumwalt 1980:29).

T-132

Thirty-three (33) glass bottle/bottle fragments from a minimum of 31 bottles were collected from T-132, 2 bottles from Stratum Id; 28 bottles from Stratum Ie, SIHP #-7189; and, 1 bottle from Stratum Ie/II, SIHP #-7189 (Table 98).

One brown bottle from Stratum Id could be dated to ca. 1820–1890 based on the applied lip finish. The other bottle fragment from this stratum could not be dated.

The 28 bottles in Stratum Ie consist of an ink bottle, ten medicine bottles, two beer bottles, three beverage bottles, four spirits bottles, one condiment bottle, six bottles of unknown contents, and one cologne bottle.

The ink bottle was an aqua cone-shaped bottle. This ink bottle shape was made as early as the 1830s, but was the dominant form from the 1880s to the 1910s (BLM/SHA 2013_Diagnostic Shapes). An amber beer bottle has a base mark of A B Co., a mark used by the American Bottle Co. from 1905-1929 (Whitten 2013).

A clear medicine bottle contained “Healy & Bigelow Indian Sagwa,” a kidney regenerator. A similar bottle for this company was collected from T-152. Healy & Bigelow established the Kickapoo Indian Medicine Co., of New Haven, Connecticut in 1881. The Sagwa brand was advertised in 1881, but by 1929 was advertised as the Kickapoo Sagwa by Wm. R. Warren, so the bottle in T-132 dates from 1881 to 1929 (Fike 1987:166). Odell (1998) dates the embossed bottles for Indian Sagwa from ca. 1884 to 1901.

A clear bottle is embossed with the words Candy Bro. Mfg. Co., St. Louis, Missouri. These bottles are often advertised as candy bottles on the internet, but the company was actually a drugstore owned by Welsey W. Candy (*Meyer Brothers Druggist* February 1918:91). The Hollister Drug Co. medicine bottle with a base mark of S B W Co. is dated to the late 1890s by Elliott and Gould (1988: 201). The Saltsburg Bottle Works of Saltsburg, Pennsylvania specialized in the making of druggist’s ware and used the SBWCo. mark on their bottles from ca. 1890-1900 (Whitten 2013). Another large maker of druggist’s ware was the Whittall, Tatum, & Co., of Millville, N.J. One bottle has the base mark (W T & Co.) that this company used from 1857-1901 (Toulouse 1971:546; Whitten 2013).

One bottle is embossed Stephens & Son, Glouchester. J. Stephens of Glouchester, England, presented awards for his pickles, sauces and vinegar as early as 1880–81 (Melbourne International Exhibition 1882:332), but he also advertised his containers for jams, pickles, sauces, soups, and druggists’ and chemists’ wares (*Chemist & Druggist* 1901:445). Thus the bottle pictured may have contained some type of food, but more likely was a medicine bottle. It has an applied lip, indicating that the bottle was made pre-1890.

One amber medicine bottle is embossed P. D. & Co., a mark used for the Parke-Davis Co., a pharmaceutical company incorporated in 1874, originally in Detroit, Michigan, and still in business today (Hoefle and Lambert-Parke Davis 2000:30, 33). Most of the bottles with this mark pre-date 1930 (Whitten 2013). Dr. Thompson’s Eye Water of Bridgeport, Conn. was invented by Dr. Isaac Thompson in 1795. The formula was purchased by John Thompson of New London, Conn. in 1830 and sold until 1939 (*JAMA Ophthalmology* 2010; Fike 1987:245). The bottle from T-132 is embossed with the place name of New London, so it post-dates 1830. It has a tooled lip, which narrows the date further to the 1880s to 1920s. A second Healy and Bigelow Sagwa bottle, the same type found in Stratum Ie, SIHP #-7189, dates from ca. 1884 to 1901. Enos’s Fruit Salt was a type of antacid introduced in ca. 1880 and still advertised in 1922. It was bottled at the Wood Bros. glass house in Barnsley, England (Fike 1987:161).

One boot polish bottle was collected from Stratum Ie/II, SIHP #-7189. The Crown Dressing shoe polish bottle is for the Frank Miller Co., New York, which was established in 1838 (Edwards and Critten 1885:146). The polish may also have been used to clean boots and shoes, but could also be used to polish harnesses and thus could be associated with horse or mule stables. Similar bottles also were found in T-129, T-132, T-140, and T-202 of West Kaka‘ako.

One bottle is embossed with the name “Florida Water, Murray and Lanman Druggists, New York. The product was a cologne, first advertised around 1863, although it could have been introduced earlier (Sullivan 1994:89). The bottle has an applied lip, narrowing the date to 1863 to 1890.

A light green condiment bottle was made for Yorkshire Relish, a brand of the Goodall, Backhouse and Co., established in 1858 in England (Grace's Guide 2007). The company used a light green bottle from 1858 to 1922 (Zumwalt 1980:181), and the applied lip on this bottle dates it to pre-1880.

A beer bottle is embossed S B G & Co., a mark used by the Streator Bottle & Glass Co., of Streator, Illinois from 1881-1905 (Toulouse 1971:461-463; Whitten 2013). Two soda bottles, one for Hollister & Co., Honolulu, and one for the Consolidated Soda Works, Honolulu were collected. The Hollister & Co. bottle with a semi-round base and rectangular letter O is dated to ca. 1900-1908 in Elliott and Gould (1988:112-113). The Consolidated Soda Co. is a Codd-stopper bottle made in 1895 (Elliott and Gould 1988:79).

T-132 contains a wide variety of bottle types and bottle dates. The lower layer, Ie/II, SIHP #-7189, contains bottles with applied lip finishes (1820–1890) and tooled lip finishes (1880–1920s), while Id, SIHP #-7189, has a mixture of bottles with applied lips, tooled lips, and ABM lips (post–1903). This may indicate that Stratum Ie/II, SIHP #-7189, has an older mixture of bottles (no ABM bottles) than Stratum Id, SIHP #-7189. However, the upper stratum, Id, has a bottle with an applied lip, the oldest type of the three lip finishes mentioned. Therefore, there is no straight chronology of older to younger bottles through the three fill layers.

T-133

One aqua medicine bottle fragment, one complete blue medicine bottle, and one complete dark green bulk ink bottle were collected from the backdirt pile from T-133 (Table 99). The aqua medicine bottle was for C.I. Hood & Co., Lowell, Mass Sarsaparilla Compound/Extract, popular from ca. 1870s to 1950s. The BLM/SHA (2013_Medicinal) Historic Bottle Identification site indicates that the style of the bottle found in T-133 (vertical embossing) dates from the 1880s to 1890s. The blue medicine bottle was for Wm. J. Bryan Apothecary, San Francisco. This business is listed in the 1875 San Francisco directory (San Francisco Genealogy 2013). Many of these companies ceased to exist or moved to nearby areas of California, like Oakland, after the 1906 San Francisco fire, so this bottle probably dates to ca. 1870s–1910. The ink bottle, a bulk or storage bottle, was for the Stafford Ink Co., which began to make ink under Dr. Stafford's name in 1869 (Odell 2013).

T-134

Fifteen glass fragments for a minimum of 13 bottles were collected from T-134, Strata Ib, (six bottles), Ie (one bottle), and If, SIHP #-7189 (7 bottles) (Table 100). From Stratum Ib are an aqua soda bottle, an aqua medicine vial, a dark olive spirits bottle, and bottle fragments for a brown, clear, and light green bottles. The aqua bottle matches the orientation and wording for the Honolulu Soda Water Co., which used these types of bottles from ca. 1910-1916 (Elliott and Gould 1978:114). The clear glass fragment can be dated to the post–1870 period. Stratum Ie has a green neck fragment made in a turn mold, dating from 1860 to the 1920s. In Stratum If were amber, green, and light green fragments, with little dating value, and two dark olive beverage bottles with an applied lip finish, used from ca. 1820–1890. Also collected is a light green medicine bottle from Keating's Cough Lozenges, Churchyard, London, a brand produced by Thomas Keating, who began a business in London in 1870. The cough lozenges seem to have been advertised during the mid to late 1800s. They contained morphine, ipecacuanha, extract of

licorice, sugar, and tragacanth gum, and the recommended dosage was one or two lozenges at bedtime (Teahertz Co. 2013). The lozenge bottle has an applied lip, which means it was probably manufactured before 1890.

T-136

Two complete bottles were collected from T-136, Stratum Ih (Table 101). They consisted of a dark brown beer bottle and a dark olive beverage bottle. The brown bottle has AB embossed on the base. The mark was used by the Adolphus Busch Glass Mfg. Co., St. Louis, Mo. from 1904 to 1907 or by the American Bottle Co. from 1905 to 1929 (Whitten 2013). The dark olive bottle was made in a turn mold, dating it to 1860–1920s.

T-137

One complete olive spirits bottle was collected from T-137, Stratum Ib (Table 102). It has a beveled lip with a tooled champagne lip finish, which was common from ca. 1900 to 1920 (BLM/SHA 2013).

T-138

Three complete bottles were collected from Stratum II, SIHP #-7189 of T-138 (Table 103). These consisted of an aqua medicine bottle, a clear medicine bottle, and a brown beverage bottle. The aqua bottle was for the Parke-Davis Co., a pharmaceutical company incorporated in 1874 originally in Detroit, Michigan, and still in business today (Hoefle and Lambert-Parke Davis 2000:30, 33). The clear medicine was for the Davis Vegetable Painkiller” brand of patent medicine, first bottled commercially in 1844. This medicine was sold as a general cure all for humans and animals; after the crackdown on patent medicines brought about by the Pure Food and Drug Act of 1906, this product was sold as a liniment, rather than as an oral medicine (Fike 1987:130), thus our bottle probably dates from the 1870s (2-piece cup mold) to the 1910s. The brown beverage bottle has an applied lip with a two-piece mold, used from ca. 1870–1890s.

T-140

Four complete bottles and one base fragment were collected from T-140, Stratum Ih, SIHP #-7189 (Table 104). The bottles consist of one aqua soda bottle, one light green soda bottle, two beverage bottles, and one shoe polish bottle. In 1863, two men, Hollister and Hyland founded the first soda water company, H & H, in Hawai'i. Later bottles are simply labeled Hollister & Co. (Elliott 1971:26). Elliott and Gould (1978:104) show only one bottle labeled H & H, dated to ca. 1869. The same mold was used in 1871, with the H & H removed, and the word Co. added, so the bottle from T-140 must date to ca. 1863-1871. The second soda bottle is from the Tahiti Lemonade Works Co., dated to ca. 1892 (Elliott and Gould 1978:124). In this year their plant moved from Nu'uano and King in downtown Honolulu to Sunny South (Young Street area in Pawa'a) in Waikiki (Elliott 1971:32). The Crown Dressing shoe polish bottle is for the Frank Miller Co., New York, which was established in 1838 (Edwards and Critten 1885:146). Similar bottles were found in T-129, T-132, and T-202 of West Kaka'ako, and the product may have been also used to clean and polish harness and could be associated with horse or mule stables. The beverage bottle has an applied lip (1820–1890) and the spirits bottle has a champagne lip with a tooled beveled lip edge (1880s–1920s).

T-142

Three bottle fragments, two clear and one green, from two bottles were collected from T-142, Stratum Ic (Table 105). The clear fragment can be dated to post 1870.

T-143

Thirty-nine (39) glass fragments from a minimum of 13 bottles were collected from T-143, Stratum Id (11 bottles) and Stratum Id/Ie (two bottles) (Table 106). Thirty-six small fragments were found in Stratum Id, in various colors: amber, aqua, brown, clear, green, and olive. The clear fragments can be post-dated to 1870. Stratum Id contained two aqua medicine vials. The fragments found in Stratum Id/Ie included two green medicine bottle fragments exhibiting the Kina LaRoche brand used for an “invigorating tonic” to reduce fever. The brand was called Quina-LaRoche, indicating that the medicine had or claimed to have quinine, used for reducing the fever of malaria. It was advertised, at least, from the 1860s to the 1910s (Zoe 2011). One of the main ingredients was cocaine, and although advertised as a French medicine, it was actually made at the New York office of the French company (The Pharmaceutical Era [Weekly] Vol. 39:50, January 9, 1908).

T-145

Two brown bottle fragments were collected from T-145, Stratum Ic (Table 107). It has a tooled lip finish, which dates it from the 1890s to the 1920s.

T-148A

Six bottle/bottle fragments from a minimum of five bottles were collected from T-148A, Stratum Ib (Table 108). The five bottles consist of an amber bottle, an amber beer bottle, a black glass beverage bottle, an olive spirits bottle, and a dark olive spirits bottle. The amber beer bottle was made by the Streator Bottle & Glass Co., of Streator, Illinois, an early bottler of Busch beer; they used this mark from 1881 to 1905 (Whitten 2013). A black square bottle has a possible glass pontil. It may be a case gin, although it does not show the usual pointed corners. As noted previously, mouth-blown case gins were made and exported to American from Europe up until the 1920s. One olive spirits bottle may be a turn mold or early dip mold bottle and dates to the pre-1920s. The dark olive spirits bottle has a tooled, champagne lip, used from the 1880s to 1920s.

T-149

One clear medicine vial fragment (Stratum Ib) and one complete clear medicine bottle (Stratum Ie) were collected from T-149 (Table 109). The medicine bottle is for the company of “P. Möller Ol Jecor Gador ver Christiania.” Peter Möller (Möller 2010) of Norway founded a company in 1854 in Christiania (Oslo) to make cod liver oil. The distinctive green bottles for this product were introduced in 1925/26, so the clear embossed, tooled lip bottle from T-149 must date from the 1870s to the 1920s.

T-152

One complete clear medicine bottle and one amethyst-tinted clear bottle lip fragment were collected from T-152, the first from Stratum Ic/Id, and the second from Stratum Ig (Table 110). The clear medicine bottle is for “Healy & Bigelow Indian Sagwa,” a kidney regenerator. Healy

& Bigelow established the Kickapoo Indian Medicine Co., of New Haven, Connecticut in 1881. Fike (1987:166) noted that the Sagwa brand was advertised in 1881, but by 1929 was advertised as the Kickapoo Sagwa by Wm. R. Warren. Therefore, the bottle from T-152 dates from 1881 to 1929 (or earlier). The embossed bottles for Indian Sagwa may date from ca. 1884 to 1901 (Odell 1998). The clear lip fragment from Stratum Ig has an amethyst tint, due to the addition of manganese used for clear glass from the 1880s to 1913.

T-153

One green bottle base was collected from T-153, Stratum II (Table 111). It was made in a two-piece cup mold and probably post-dates the 1870s.

Table 84. West Kaka'ako, T-116, Glass Bottles

Acc. # 116- A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
7	T-116, St. Ij	Bottle, beverage	Base- neck	1	--	--	Green, light	20.0+	6.3	Round	2 pc. cup		"863" – embossed on base; "9" in center of base
8	T-116, St. Ij	Bottle, soda	Base- neck	1	--	--	Amber	21.5+	5.5	Round	2 pc. cup	1870– ca. 1900	"VINCENT/ HATHAWAY/& CO./BOSTON/ GINGER ALE" – embossed on body; rounded bottom ginger ale bottle (The Commissioners of Patents' Journal 1872:164)
9	T-116, St. Ij	Bottle, beverage	Complete	1	Brandy	Applied	Olive	24.0	6.5	Round	2 pc. cup	1820– 1890	
10	T-116, St. Ij	Bottle, beer	Base- body	1	--	--	Amber	8.5+	6.5	Round	2 pc. post	1866– 1890	"L G Co./15" – embossed on base; mark used by Lindell Glass Co., St. Louis, Mo. for beer bottles (BLM/SHA 2013)
11	T-116, St. Ij	Vial, medicine	Complete	1	Patent	Tooled	Clear	9.5	2.5	Round	2 pc. cup	1880– 1920s	
12	T-116, St. Ij	Bottle, beverage	Complete	1	Double oil	Applied	Green, light	29.0	7.2	Round	2 pc. cup	1820– 1890	
13	T-116, St. Ij	Bottle, sauce	Complete	1	Club sauce	Applied	Blue, light	22.0	6.5	Round	2 pc. cup	1877– 1890	"LEA & PERRINS" embossed on body vertically; JDS on base; mold-blown bottles date from 1877 to 1890

Table 85. West Kaka'ako, T-117, Glass Bottles

Acc. # 117-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
5	T-117, St. Ic	Bottle, spirits	Complete	1	Brandy	Applied	Olive, dark	23.4	6	Round	Turn	1860– 1920s	Base: push up
6	T-117, St. Ic	Bottle, spirits	Shoulder –lip	1	Brandy	Tooled	Green, light	--	--	--	--	1880– 1920	
7	T-117, St. Ic	Bottle	Base– body	1	--	--	Green	--	--	--	--	1800 – post	Base: kick up
8	T-117, St. Ic	Bottle, gin	Base	1	--	--	Green, dark	--	7.3	Square	--		Case gin; rounded corners
9	T-117, St. Ic	Bottle	Body	2	--	--	Amber	--	--	--	--		
10	T-117, St. Ic	Bottle, spirits	Base– body	1	--	--	Olive	--	7.4	Round	Turn	1860– 1920s	
11	T-117, St. Ic	Vial, medicine	Complete	1	None	Sheared	Clear	7.4	2.5 x 1.5	Rectan- gular	2 pc. cup	1870s – post	
12	T-117, St. Ic	Bottle, medicine	Neck–lip	1	Oil	Tooled	Blue, cobalt	--	--	--	--	1880– 1920	
13	T-117, St. Ic	Bottle, medicine	Lip	1	Oil	Applied	Clear	--	--	--	--	1870s – post	
14	T-117, St. Ic	Bottle, spirits	Base– body	1	--	--	Amber	--	7.5	Round	Turn	1860– 1920s	Base: push up
15	T-117, St. Ic	Bottle	Body	6	--	--	Olive	--	--	Oval	--		
16	T-117, St. Ic	Bottle	Base	1	--	--	Aqua	--	--	Rect./ square	--		Flat corners
17	T-117, St. Ic	Bottle, medicine	Base– body	2	--	--	Brown, light	--	--	Oval	2 pc. cup	1870s – post	
18	T-117, St. Ic	Bottle, beverage	Body	2	--	--	Clear	--	--	Rect./ square	--	1870s – post	
19	T-117, St. Ic	Bottle	Body	2	--	--	Green, light	--	--	Rect./ square	--		

Table 86. West Kaka'ako, T-118, Glass Bottles

Acc. # 118-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
2	T-118, St. Ib	Bottle	Base	1	--	--	Aqua	--	6.5 x 6.5	Square	--		
3	T-118, St. Ib	Bottle	Base- body	1	--	--	Green	6.5+	4.8	Round	--		
4	T-118, St. Ie	Bottle, ink	Complete	1	--	--	Aqua	6.3	6.3	Round	2 pc. cup	1870s - post	Cone-shaped ink; most common from 1880s to 1910 (BLM/SHA 2013_Diagnostic Shapes)
5	T-118, St. Ie	Bottle	Neck-lip	1	Laid- on-ring	--	Aqua	--	--	--	--		
6	T-118, St. Ie	Bottle	Body	1	--	--	Brown	--	--	--	--		
7	T-118, St. Ie	Lid	Complete	1	--	--	White	1	5.3	Square	--	1870s - post	Milk glass
8	T-118, St. Ie	Bottle	Neck-lip	1	Patent	Tooled	Clear	--	--	--	--	1880- 1920	
9	T-118, St. Ie	Bottle	Complete	1	Laid- on-ring	--	Aqua	20.5	5.5	Round	2 pc. cup	1870s - post	"P10" embossed on base
10	T-118, St. Ie	Lid, medicine	Complete	1	--	--	Aqua	6	7.5	Round	2 pc. cup	1870s - post	Glass lid

Table 87. West Kaka'ako, T-120B, Glass Bottles

Acc. # 120B-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
8	T-120B St. Ic-II backdirt	Bottle, cologne	Complete	1	Patent	Tooled	Clear	9	3	Round	2 pc. cup	1870s – post	“Peck’s Silver Medal Cologne, San Francisco, CAL.” – embossed horizontally on body
9	T-120B, St. Ic-II	Bottle, spirits	Base (2); body (7); neck-lip (1)	10	--	--	Olive, dark	--	--	Round	--	pre- 1890s	Base: kick up
10	T-120B, St. Ic-II	Bottle, spirits	Base (2); body (2); lip (1)	5	Brandy	Tooled	Olive, dark	--	7.5	Round	Turn	1890s– 1920s	
11	T-120B, St. Ic-II	Bottle, beverage	Base	1	--	--	Blue, light	--	--	Round	--	1800 – post	
12	T-120B, St. Ic-II	Bottle, spirits	Lip	1	Cham- pagne	--	Green, light	--	--	--	--	1880s – post	
13	T-120B, St. Ic-II	Bottle, beverage	Body	1	--	--	Olive, dark	--	--	--	--		
14	T-120B, St. Ic-II	Bottle	Body	2	--	--	Olive, dark	--	--	Rectan- gular	2 pc.	1870s – post	

Table 88. West Kaka'ako, T-121, Glass Bottles

Acc. # 121-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
3	T-121, St. Ic	Bottle	Base– neck	1	--	--	Blue, cobalt	14.0+	3	Round	2 pc. cup	1870s – post	“2.1.2” embossed on base
4	T-121, St. Ic	Bottle, beverage	Shoulder– lip	1	Brandy	Applied	Amber	14.5	4.5	Round	2 pc. cup	1820– 1890	Base: kick up

Table 89. West Kaka'ako, T-123, Glass Bottles

Acc. # 123-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-123, St. Ie	Bottle, gin	Complete	17	Laid- on-ring	--	Olive	--	6.5 x 6.0	Square	--		Case gin; "X" embossed on base; no visible seams and asymmetrical shape

Table 90. West Kaka'ako, T-124, Glass Bottles

Acc. # 124-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
3	T-124, St. Id	Bottle, spirits	Neck-lip	1	Brandy		Olive	--	--	--	2 pc.		Portion of seam near lip remains
4	T-124, St. Id	Bottle, beer	Base	1	--	--	Amber	--	7.4	Round	--		"M. J. H." embossed on base
5	T-124, St. Id	Bottle, spirits	Base- body	1	--	--	Olive	--	7.5	Round	Turn	1860- 1920s	Base: push-up

Table 91. West Kaka'ako, T-125, Glass Bottles

Acc. # 125-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
6	T-125, St. Id	Bottle	Body	1	--	--	Aqua	--	--	--	--		
7	T-125, St. Id	Bottle	Body	4	--	--	Brown	--	--	--	--		
8	T-125, St. Id	Bottle	Body	1	--	--	Clear	--	--	--	--	1870s- post	
9	T-125, St. Id	Bottle	Base- body	6	--	--	Olive, dark	--	--	--	--	1800- post	
10	T-125, St. Id	Bottle	Body	1	--	--	Olive, dark	--	--	--	--		

Acc. # 125-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
11	T-125, St. Id	Bottle	Neck	1	--	--	Olive, dark	--	--	--	--		
12	T-125, St. Ie	Bottle	Body	1	--	--	Aqua	--	--	--	--		
13	T-125, St. Ie	Bottle	Body	1	--	--	Brown	--	--	--	--		
14	T-125, St. Ie	Bottle	Body	1	--	--	Green	--	--	--	--		
15	T-125, St. Ie	Bottle	Neck	1	--	--	Olive, dark	--	--	--	--		

Table 92. West Kaka'ako, T-126, Glass Bottles

Acc. # 126-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
6	T-126, St. Ic	Bottle, ink	Complete	1	Double ring	--	Aqua	6	6.8	Round	2 pc. cup	1880s- 1910s	Sick glass; base: CARTERS; two dimples on bottom,; cone shaped (BLM/SHA 2013_Diagnostic Shapes)
7	T-126, St. Ic	Bottle, spirits	Base/ body	2	--	--	Olive, dark	6.0+	8.5	Round	--	1866- 1900	Base: kick up; "[P]ORTOBBLLO" embossed on base; R. Cooper & Co., Portobello Glass Works, Scotland

Table 93. West Kaka'ako, T-127, Glass Bottles

Acc. # 127-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
2	T-127, St. Ic	Bottle	Base	1	--	--	Black	--	7.5	Round	No seam	pre- 1890s	Suction mark on base; glass is very thick and heavy
3	T-127, St. Ic	Bottle	Neck-lip	1	Patent	Tooled	Olive, dark	--	--	--	--	1880s- 1920s	
4	T-127, St. Ic	Jar	Base	1	--	--	White	--	--	--	--		Milk glass

Table 94. West Kaka'ako, T-128, Glass Bottles

Acc. # 128-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
3	T-128, St. Ia	Bottle	Base	1	--	--	Aqua	--	6.8	Round	2 pc. cup	1870s- post	

Table 95. West Kaka'ako, T-129, Glass Bottles

Acc. # 129-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-129, St. II	Bottle, spirits	Complete	1	Blob	Applied	Olive	23	7	Round	Turn	1860- 1920s	
2	T-129, St. II	Bottle, spirits	Complete	1	Brandy	Applied	Olive, dark	23	7	Round	Turn	1860- 1920s	
3	T-129, St. II	Bottle, spirits	Complete	1	Blob	Applied	Olive, dark	23	7	Round	Turn	1860- 1920s	
4	T-129, St. II	Bottle, spirits	Complete	1	Blob	Applied	Olive, dark	23	7	Round	Turn	1860- 1920s	
5	T-129, Utility feature	Vial, medicine	Base- neck	1	--	--	Clear	6.0+	1	Square	2 pc. cup	1870s- post	

Acc. # 129-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
6	T-129, Utility feature	Bottle, boot polish	Complete	1	Patent	Tooled	Aqua	12.5	4	Square	2 pc. cup	1838- late 1800s	"Frank/Millers/ Crown Dressing/ New York/USA" - embossed on body horizontally; "20" - embossed on base (Edwards and Critten 1885:146)

Table 96. West Kaka'ako, T-130, Glass Bottles

Acc. # 130-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
12	T-130, St. Ii, SIHP #-7189	Bottle, soda	Complete	1	Blob	Tooled	Green, light	20.1	5	Round	2 pc. cup	1890s- 1910s	Embossed on body - "HOLLISTER & Co./ HONOLULU"
13	T-130, St. Ii, SIHP #-7189	Bottle	Complete	1	Brandy	Tooled	Amber	23.1	6.2	Round	2 pc. cup	1890s- 1920s	
14	T-130, St. Ii, SIHP #-7189	Bottle	Base	1	--	--	Aqua	--	7.7	Round	2 pc. cup	1882- 1886	Embossed on base - "B G Co."; probably used by the Belleville Glass Co., Belleville, Ill. 1882-1886 (Whitten 2013)
15	T-130, St. Ii, SIHP #-7189	Bottle, spirits	Complete	1	Brandy	Applied	Green, light	16.9	5.7 x 2.2	Oval	2 pc. cup	1820- 1890	Flask
16	T-130, St. Ii, SIHP #-7189	Bottle, medicine	Complete	1	Patent	Tooled	Aqua	14	4.9 x 2.7	Rectan- gular	2 pc. cup	1870s- post	

Acc. # 130-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
17	T-130, St. Ii, SIHP #-7189	Bottle, spirits	Complete	1	Patent	Tooled	Clear	14.2	4.6 x 3.5	Rectan- gular	2 pc. cup	1870s- post	Embossed on body: Dr. D JAYNE/ LINIMENT; [2nd side] "COUNTER- IRRITANT/ PHILADa"
18	T-130, St. Ii, SIHP #-7189	Bottle, medicine	Complete	1	Patent	Tooled	Aqua	10.7	3.3	Round	2 pc. cup	1870s- post	Gradation marks on side; stippled base; embossed on base - "V" in a circle
19	T-130, St. Ii, SIHP #-7189	Bottle, beer	Base-- neck	2	--	--	Amber	25.7+	7.3	Round	2 pc. cup	1876- 1902	Embossed horizontally on base - "BUFFALO/ BREWING CO./ SACRAMENTO/ CAL"; on base - "S.F. & P.G.W."; 1876-1902 mark used by the San Francisco & Pacific Glass Works

Table 97. West Kaka'ako, T-131, Glass Bottles

Acc. # 131-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
4	T-131, St. Id	Bottle, spirits	Complete	1	Brandy	Applied	Black	22.5	7.5	Round	Turn	1820- 1890	
5	T-131, St. Id	Bottle, spirits	Complete	1	Brandy	Applied	Olive	23.1	7	Round	Turn	1820- 1890	

Acc. # 131-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
6	T-131, St. Id	Bottle, spirits	Complete	1	Brandy	Applied	Olive	23	7.3	Round	Turn	1820- 1890	
7	T-131, St. Id	Bottle, spirits	Neck-lip	1	Brandy	Applied	Aqua	--	--	--	--	1820- 1890	
8	T-131, St. Id	Bottle, condiment	Complete	1	Club sauce	Tooled	Clear	18	5.3	Round	2 pc. cup	1850- 1920	"LEA & PERRINS" "WORCESTSHIRE SAUCE" - embossed on body; "J62D/S" embossed on base (BLM/SHA 2013)
9	T-131, St. Id	Bottle, beverage	Complete	1	Blob	Applied	Clear	22	7.3 x 3.5	Rectan- gular	2 pc. cup	1840s- 1920s	Base: push up
10	T-131, St. Id	Bottle, beverage	Base- body	1	--	--	Aqua	--	6	Round	2 pc. cup	1868- 1893	Embossed on body - ...O.../ ...U..."; "Hollister & Co Honolulu" (Munsey 2010a:30b)
11	T-131, St. Id	Bottle, soda	Neck-lip	1	English ring	Tooled	Clear	--	--	--	2 pc.	1890s- 1920s	
12	T-131, St. Id	Bottle, beverage	Base- body	2	--	--	Olive	--	7.2	Round	2 pc.	1872- 1913	"2067" and "N & C" embossed on base; base mark used by Nuttall & Co. Lancashire, England pre-1913
13	T-131, St. Id	Jar, extract	Complete	1	Wide- mouth	--	White	3	4.2	Round	--		Milk glass; embossed on base "ARMOUR & CO/PACKERS/ CHICAGO" in shield outline
14	T-131, St. Id	Vial, medicine	Complete	1	Sheared	--	Clear	7	1.5	Rectan- gular	2 pc.	1800- 1870	

Table 98. West Kaka'ako, T-132, Glass Bottles

Acc. # 132-A	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
22	T-132, St. Id	Bottle	Lip	2	Ring	Applied	Brown	--	--	--	--	1820-1890	
23	T-132, St. Id	Bottle	Body	1	--	--	Green	2.0+	2	--	--		
24	T-132, St. Ie, SIHP #-7189	Jar, medicine	Base-neck	1	Continuous thread	ABM	Clear	6.3	4	Round	2 pc. cup	1920-post	Wide-mouth jar; embossed on base "W. T. & Co./898" in arc; for Whittall, Tatum & Co., Millville, N.J.
25	T-132, St. Ie, SIHP #-7189	Bottle, medicine	Complete	1	Double ring	Applied	Green, light	9	4.8	Round	2 pc. cup	1820-1890	Embossed on body vertically "...[S]TEPHENS SON & Co. GLOUCESTER"; English mfg. of pickles, jam, sauces, and their bottles
26	T-132, St. Ie, SIHP #-7189	Bottle, ink	Complete	1	Ring	--	Aqua	6.3	6.3	Round	2 pc. cup	1880s-1910	Cone-shaped; most common from 1880s to 1910 (BLM/SHA 2013_Diagnostic Shapes)
27	T-132, St. Ie, SIHP #-7189	Bottle, spirits	Base-shoulder	1	--	--	Green, light	16.0+	5.9	Round	Turn	1860-1920s	Base: push up
28	T-132, St. Ie, SIHP #-7189	Bottle, beverage	Neck-lip	1	Crown	ABM	Clear	--	--	Round	2 pc. cup	1907-post	

Acc. # 132-A	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
29	T-132, St. Ie, SIHP #-7189	Bottle, spirits	Base--body	1	--	--	Olive	--	7.1	Round	Turn	1860-1920s	Base: push up
30	T-132, St. Ie, SIHP #-7189	Bottle, spirits	Shoulder--lip	1	Patent	Tooled	Green, light	--	--	Round	No seam	pre-1920	
31	T-132, St. Ie, SIHP #-7189	Bottle, beer	Base-neck	1	--	--	Amber	27.1+	7.3	Round	2 pc.	1905-1929	Embossed on base "A B Co"; probably American Bottle Co., 1905-1929 (Whitten 2013)
32	T-132, St. Ie, SIHP #-7189	Bottle, beer	Complete	1	Brandy	Applied	Amber	29	7.5	Round	2 pc. cup	1881-1905	"32/SB & G Co" - embossed on base; for Streator Bottle & Glass Co., Streator, Ill.
33	T-132, St. Ie, SIHP #-7189	Bottle, soda	Complete	1	Blob	Applied	Aqua	19	6	Round	2 pc. cup	1894-1910	"CONSOLIDATED/SODA WATER/WORKS CO LTD/HONOLULU H.I." and "ACME PATENT/4/SOLE MAKER/DAN RYLANDS/BARNSLEY" embossed horizontally on body; Codd bottle (Elliott and Gould 198:79)

Acc. # 132-A	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
34	T-132, St. Ie, SIHP #-7189	Bottle, condiment	Complete	1	Brandy	Applied	Clear	19.5	5	Round	2 pc. cup	1858- 1880	"Yorkshire Relish"; embossed on body horizontally; vertically on body side: "GOODALL BACKHOUSE & CO" (Grace's Guide 2007; Zumwalt 1980:181)
35	T-132, St. Ie, SIHP #-7189	Bottle	Complete	1	Double oil	Tooled	Blue, cobalt	20	1.2	Round	2 pc. cup	1870- 1906	"5" - embossed on base
36	T-132, St. Ie, SIHP #-7189	Bottle	Complete	1	Double oil	Tooled	Blue, cobalt	17.5	3	Round	2 pc. cup	1870- 1906	"Y/2/12" - embossed on base
37	T-132, St. Ie, SIHP #-7189	Bottle, medicine	Complete	1	Patent	Tooled	Amber	9	2.5 x 4.0	Rectan- gular	2 pc. key	1870- 1920s	"P/D. &CO/394/ 5V6LCL510R" - embossed on base Parke, Davis & Co. (Whitten 2013)
38	T-132, St. Ie, SIHP #-7189	Bottle, medicine	Complete	1	Ring	Applied	Green, light	17	6.2 x 3.8	Rectan- gular	--	1880- 1890	Embossed on body vertically "ENO'S FRUIT SALT"; on base "W. B. J."
39	T-132, St. Ie, SIHP #-7189	Bottle, medicine	Complete	1	Oil	Tooled	Green, light	22	7.4 x 4.4	Rectan- gular	2 pc. cup	1884- 1901	Embossed on body sides vertically "HEALY & BEGELOW/ INDIAN SAGWA" (Odell 1998)

Acc. # 132-A	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
40	T-132, St. Ie, SIHP #-7189	Bottle, cologne	Complete	1	Packer	Applied	Aqua	23	5.4	Round	--	1820- 1890	Embossed on body vertically "FLORIDA WATER/MURRAY & LANMAN/ DRUGGISTS/NEW YORK"
41	T-132, St. Ie, SIHP #-7189	Bottle	Complete	1	Packer	Tooled	Clear	31.5	6.1	Round	No seams	1890s- 1920s	Tall, bulbous bottle; possibly barber-shop bottle
42	T-132, St. Ie, SIHP #-7189	Bottle	Complete	1	Ring	Applied	Green, light	21.5	7.3 x 3.6	Rectan- gular	2 pc. Cup	1820- 1890	Fluted panels; possibly ketchup bottle
43	T-132, St. Ie, SIHP #-7189	Bottle, medicine	Base-- body	1	--	--	Aqua	--	2.6	Round	2 pc. cup	1857- 1901	Embossed vertically on body "...BIGELOW/... & CO"; for Healy & Bigelow (Fike 1987:166)
44	T-132, St. Ie, SIHP #-7189	Bottle, medicine	Complete	1	Ring	Tooled	Green, light	9.9	2.5	Round	2 pc. cup	1890s- 1920s	Embossed on body vertically "Dr. THOMPSON'S/ EYE WATER/NEW LONDON. CONN" (Fike 1987:245)

Acc. # 132-A	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
45	T-132, St. Ie, SIHP #-7189	Bottle, medicine	Complete	1	Patent	Tooled	Clear	11.3	4.2 x 2.6	Rectan- gular	2 pc. cup	1890s- late	Embossed vertically on body - "HOLLISTER DRUG CO. LTD./ FORT STREET/ HONOLULU H.I."; on base "S B W CO" for Saltsburg Bottle Works, Saltsburg, PA (Whitten 2013); bottle dated by Elliott and Gould (1988:201) to late 1890s
46	T-132, St. Ie, SIHP #-7189	Bottle, medicine	Complete	1	Patent	Tooled	Clear	10	4.3	Round	2 pc. cup	1885- 1920s	Embossed horizontally on body "CANDY BROS/MFG CO/ ST. LOUIS, MO" in an arc; druggist
47	T-132, St. Ie, SIHP #-7189	Bottle	Complete	2	Continuous thread	--	Clear	--	4	Round	2 pc. cup	1870s- post	"CRE . . ." - embossed horizontally on body
48	T-132, St. Ie, SIHP #-7189	Bottle, medicine	Complete	1	Patent	Tooled	Clear	9.3	3.6	Round	2 pc. cup	1870s- post	Wide mouth
49	T-132, St. Ie, SIHP #-7189	Bottle	Complete	1	--	Applied	Brown, dark	14.4	6	Round	3 pc.	1820- 1890	Lip covered with metal cap

Acc. # 132-A	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
50	T-132, St. Ie, SIHP #-7189	Bottle, soda	Base-- body	1	--	--	Aqua	14.0+	5.6	Round	--	1900- 1908	Embossed on body vertically "...ER & Co. ... ULU"; Hollister & Co. soda bottle; semi-rounded bottom (Elliott and Gould 1988:112-113)
51	T-132, St. Ie, SIHP #-7189	Bottle, gin?	Shoulder- lip	1	Oil	Applied	Olive	--	--	Square	--	1820- 1890	
52	T-132, St. Ie/II, SIHP #-7189	Bottle, boot polish	Complete	1	Patent	Tooled	Aqua	12.5	4	Square	3 pc. cup	1838- late 1800s	"FRANK/ MILLER'S / CROWN / DRESSING / NEW YORK / USA" embossed on body (Edwards and Critten 1885:146)

Table 99. West Kaka'ako, T-133, Glass Bottles

Acc. # 133-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-133 Back pile	Bottle, medicine	Base- neck	1	--	--	Aqua	21.0+	7.0 x 4.0	Rectan- gular	2 pc. key	1880s- 1890s	"APOTHECARIES" - embossed vertically on one body face; "HOODS/SARSA/ PARILLA" - embossed horizontally on one body face; "LOWELL MASS" - embossed on body side vertically; "O I HOOD & C" - on side vertically; suction mark on bottom; lip broken off
2	T-133 Back pile	Bottle, medicine	Complete	1	Patent	Tooled	Blue	11.0	4.5 x 2.5	Rectan- gular	2 pc. cup	1870s- 1910 ca.	"Wm J BRYAN/ APOTHECARY/ SAN FRANCISCO" embossed vertically on body; stylized "B" near heel
3	T-133 Back pile	Bottle, ink	Complete	1	Spout	Applied	Green, dark	25.0	9	Round	2 pc. cup	1869- 1899	"STAFFORD'S/ INK" embossed vertically on body; bottle appears to have fire damage (Odell 2007)

Table 100. West Kaka'ako, T-134, Glass Bottles

Acc. # 134-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
11	T-134, St. Ib	Bottle	Body	2	--	--	Green, light	--	--	--	--		Fragments from same bottle
12	T-134, St. Ib	Bottle, spirits	Base	1	--	--	Olive, dark	--	--	Round	No seams	1800- post	Base: push up
13	T-134, St. Ib	Bottle	Body	1	--	--	Brown	--	--	--	--		
14	T-134, St. Ib	Bottle, soda	Body	1	--	--	Aqua	10.0+	--	Round	--	1910- 1916	Words on glass include "HONOLULU/ WATER Co. LTD" embossed vertically on body (Elliott and Gould 1988:114); matches bottles for the Honolulu Soda Water Co. (Elliott and Gould 1978:114)
15	T-134, St. Ib	Bottle	Body	1	--	--	Clear	--	--	--	--	1870s- post	
16	T-134, St. Ib	Vial, medicine	Complete	1	Sheared	--	Aqua	6	1.2 x 1.0	Rectan- gular	2 pc. cup	1870s- post	
17	T-134, St. Ie	Bottle, beverage	Base-neck	1	--	--	Green	21.0+	7.7	Round	Turn	1860- 1920s	
18	T-134, St. If, SIHP #- 7189	Bottle	Body	1	--	--	Amber	--	--	Round	--		Mass of glass measures about 12cm in length, 8cm width, has bright brown color
19	T-134, St. If, SIHP #- 7189	Bottle	Body	1	--	--	Green	--	--	--	--		

Acc. # 134-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
20	T-134, St. If, SIHP #- 7189	Bottle	Body	1	--	--	Green, light	12.0+	--	--	--		
21	T-134, St. If, SIHP # -7189	Bottle, beverage	Complete	1	Brandy	Applied	Olive, dark	24	6.5	Round	2 pc.	1820- 1890	Base: push up
22	T-134, St. If, SIHP #- 7189	Bottle, beverage	Complete (almost)	2	Brandy	Applied	Olive, dark	29	7.5	Round	Turn	1860- 1920s	
23	T-134, St. If, SIHP #- 7189	Bottle, medicine	Complete	1	Laid- on-ring	Applied	Green, light	9	5.5 x 4.5	Oval	No seams	Mid- late 1870s	Embossed - "KEATING'S/ COUGH LOZENGES/79 ST. PAUL'S/ CHURCHYARD/ LONDON"

Table 101. West Kaka'ako, T-136, Glass Bottles

Acc. # 136-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-136, St. Ih	Bottle, beer	Complete	1	Brandy	Tooled	Brown, dark	29.8	7.5	Round	2 pc. cup	1904- 1929	"A B/78" - embossed on base; for Adolphus Busch or American Bottle Co.
2	T-136, St. Ih	Bottle, beverage	Complete	1	Packer	Applied	Olive, dark	23.3	7.2	Round	Turn	1860- 1920s	

Table 102. West Kaka'ako, T-137, Glass Bottles

Acc. #	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
137-A-2	T-137, St. Ib	Bottle, spirits	Complete	1	Champagne	Tooled-	Olive	25.7	7	Round	2 pc.	1900-1920	Base: kick up; beveled lip

Table 103. West Kaka'ako, T-138, Glass Bottles

Acc. #	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
138-A-6	T-138, St. II, SIHP #7189	Bottle, medicine	Complete	1	Patent	Tooled	Aqua	15	5.5 x 6.0	Square	2 pc. cup	1874-1920s	"PD & CO 114A" - embossed on base; for Parke Davis & Co. (Hoefle and Lambert-Parke Davis 2000:30, 33)
138-A-7	T-138, St. II, SIHP #7189	Bottle, beverage	Complete	1	Ring	Applied	Brown	24	6.5	Round	2 pc. cup	1870-1890	Base: push up
138-A-8	T-138, St. II, SIHP #7189	Bottle, medicine	Complete	1	Double ring	Tooled	Clear	11.8	3.7 x 1.8	Rectangular	2 pc. cup	1870s-1910s	"Davis Vegetable Painkiller" - embossed on body (Fike 1987:130)

Table 104. West Kaka'ako, T-140, Glass Bottles

Acc. # 140-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
6	T-140, St. Ih, SIHP #-7189	Bottle, soda	Complete	1	Blob	Applied	Aqua	19	6.5	Round	2 pc. cup	1863- 1871	"H & H/ HONOLULU" - embossed horizontally on body; for Hollister & Hyland, 1869-1871 (Elliott and Gould 1988:104)
7	T-140, St. Ih, SIHP #-7189	Bottle, spirits	Complete	1	English ring	Applied	Clear	16	4.5	Round	2 pc. cup	1820- 1890	
8	T-140, St. Ih, SIHP #-7189	Bottle, soda	Base- shoulder	1	--	--	Green, light	8.5+	5.5	Round	2 pc. cup	1882- 1901	"TAHITI LEMONADE WORKS COMPANY HONOLULU; ACME PATENT/4/ SOLE MAKER/ DAN RYLANDS/ BARNSE[Y]" - embossed horizontally on body (Elliott and Gould 1988:6)
9	T-140, St. Ih, SIHP #-7189	Bottle, boot polish	Complete	1	Patent	Tooled	Clear	12.5	4.5 x 4.5	Square	2 pc. cup	1838- late 1800s	"Frank Millers Crown Dressing New York, USA" - embossed horizontally on body (Edwards and Critten 1885:146)

Acc. # 140-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
10	T-140, St. Ih, SIHP #-7189	Bottle, spirits	Complete	1	Champagne	--	Clear	22.0	6.5	Round	2 pc. cup	1880s-post	

Table 105. West Kaka'ako, T-142, Glass Bottles

Acc. # 142-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-142, St. Ic	Bottle	Body	1	--	--	Green	--	--	--	--		
2	T-142, St. Ic	Bottle	Base/body	2	--	--	Clear	--	--	--	--	1870s-post	

Table 106. West Kaka'ako, T-143, Glass Bottles

Acc. # 143-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Di. (cm)	Base Shape	Mold	Age	Comments
24	T-143, St. Id	Bottle	Base	1	--	--	Clear	--	--	--	--	1870s-post	
25	T-143, St. Id	Bottle	Base	1	--	--	Clear	--	--	--	--	1870s-post	
26	T-143, St. Id	Bottle	Body	13	--	--	Amber	--	--	--	--		
27	T-143, St. Id	Bottle	Body	6	--	--	Aqua	--	--	--	--		
28	T-143, St. Id	Bottle	Base	1	--	--	Clear	--	5.3	Round	--	1870s-post	
29	T-143, St. Id	Vial, medicine	Body	1	--	--	Aqua	--	1.5 x 1.0	Rectangular	--		

Acc. # 143-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Di. (cm)	Base Shape	Mold	Age	Comments
30	T-143, St. Id	Vial, medicine	Body	1	--	--	Aqua	--	1.5 x 2.5	Rectan- gular	--		
31	T-143, St. Id	Bottle	Body	2	--	--	Green	--	--	--	--		
32	T-143, St. Id	Bottle	Body	4	--	--	Olive	--	--	--	--		
33	T-143, St. Id	Bottle	Body	4			Clear	--	--	--	--	1870s- post	Fragments from same vessel
34	T-143, St. Id	Bottle	Body	2	--	--	Aqua	--	--	--	--		
35	T-143, St. Id/Ie	Bottle	Base- body	1	--	--	Brown	7.0+	7	Round	--	1800- post	
36	T-143, St. Id/Ie	Bottle, medicine	Body-lip	2	Ring	--	Green	13.0+	--	Round	2 pc. cup	1870s- post	"Laroche, Kina" - embossed horizontally on body; base: center seam; French company, but made in U.S.

Table 107. West Kaka'ako, T-145, Glass Bottles

Acc. # 145-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-145, St. Ic	Bottle	Base/lip	2	Ring	Tooled	Brown	--	7	Round	--	1890s- 1920s	

Table 108. West Kaka'ako, T-148A, Glass Bottles

Acc. # 148A-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
3	T-148A, St. Ib	Bottle, spirits	Complete	1	Cham- pagne	Tooled	Olive, dark	24.5	7	Round	Turn	1880s- 1920s	Base: push up; beveled lip edge
4	T-148A, St. Ib	Bottle	Body	1	--	--	Amber	--	--	--	--		
5	T-148A, St. Ib	Bottle, beer	Base	1	--	--	Amber	--	--	Round	2 pc. cup	1881- 1905	Embossed on base "S B G. & Co / 3"; Streator Bottle & Glass Co., Streator, Ill. (Whitten 2013)
6	T-148A, St. Ib	Bottle, gin	Base	2	--	--	Black	--	7	Square	No seams	pre- 1890s	Possible glass pontil; edges flat; not usually case gin
7	T-148A, St. Ib	Bottle, spirits	Base- body	1	--	--	Olive	--	8.8	Round	No seams	pre- 1920	Base: kick up

Table 109. West Kaka'ako, T-149, Glass Bottles

Acc. # 149-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-149, St. Ib	Vial, medicine	Base- neck	1	--	--	Clear	5.0+	1	Rectan- gular	--	1870s- post	
2	T-149, St. Ie	Bottle, medicine	Complete	1	Patent	Tooled	Clear	15	7	Oval	2 pc. cup	1854- 1925	P. MOLLER OL JECOR GADOR VER CHRISTIANIA (Möller 2010); cod liver oil, Oslo, Norway

Table 110. West Kaka'ako, T-152, Glass Bottles

Acc. # 152-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
2	T-152, St. Ic/Id	Bottle, medicine	Complete but frag- mented	8	Patent	Tooled	Clear	22	--	Rectan- gular	2 pc. key	1884- 1901	"SAGWA" - embossed horizontally on one side; "HEALY & [B]IGELOW" (in caps) on other end; Indian on front of bottle; fragmented into several pieces (Odell 1998)
3	T-152, St. Ig	Bottle	Neck-lip	1	--	--	Clear	--	--	--	--	1880- 1913	Manganese addition

Table 111. West Kaka'ako, T-153, Glass Bottles

Acc. # 153-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-153, St. II	Bottle, spirits	Base	1	--	--	Green	--	6	Round	2 pc. cup	1870s- post	

4.11.3 Miscellaneous Historic Artifacts

Miscellaneous historic artifacts consisting primarily of building materials were collected from 30 of the West Kaka'ako test excavations. Building materials, including two bricks, nails, a wood pipe stem, sewer pipe, and window glass, and various other items, including a rounded pebble, a plastic item, and a rubber item, were collected from T-117, Stratum Ic (Table 112). One of the machine-made bricks consists of composite material and has a textured surface with a glazed face.

Building materials consisting of two brick fragments were collected from T-119, Stratum Ic (Table 113). One of the bricks may date from 1807 to 1860.

Building materials, including brick fragments, a rectangular stone block, and a stone/marble mass, and various other items, including two waterworn pebbles, one waterworn cobble, and a metal tag were collected from T-119A (Table 114). Of these, three cobbles and the stone/marble mass were found in Stratum IIa, SIHP #-7128.

Building materials consisting of three brick fragments from at least two bricks were collected from T-120, Stratum Id (Table 115). One brick is a standard size manufactured between 1886 and 1918.

One worked glass fragment was collected from T-120A, SIHP #-7428 Feature 11 (Table 116).

Building materials consisting of one brick fragment and an electrical ceramic insulator were collected from T-121, Stratum Ic (Table 117). One brick fragment was collected from T-122, Stratum Ie (Table 118). The brick is a standard size manufactured between 1918 and 1978 (Meide 1994:25). One ceramic electrical insulator was collected from T-123, Stratum II, SIHP #-2963 (Table 119).

Building materials consisting of one brick fragment and a corroded nail were collected from T-124, Stratum Id (Table 120). Also collected was a bone pipe stem or cigarette holder.

Five metal artifacts/fragments consisting of a gold hoop earring, a spoon, a possible strap or hinge, a wire and a tubular rod, were collected from T-125, Strata Id and Ie (Table 121). Also collected were a brick fragment and window glass.

One brick fragment, one complete brick, and a metal spike were collected from T-126, Stratum Ic (Table 122). The complete brick is a standard size that was manufactured from 1918 to 1978 (Meide 1994:25); the brick fragment measurements are standard for bricks manufactured from 1886 to 1918.

Two brick fragments, a spade, a nail, a strap or hinge, and a glass dish or lamp base were collected from T-127, Stratum Ic (Table 123). One complete brick and a fragment were collected from T-129, Stratum II (Table 124). The brick fragment measurements are standard for bricks manufactured from 1886 to 1918.

Household items including a woman or child's shoe, a marble, and a horseshoe were collected from T-130, Stratum Ii, SIHP #-7189 (Table 125). A plastic bucket and a ceramic planter base were collected from T-131, Stratum Id (Table 126).

Building materials including three brick fragments were collected from T-132, Stratum Id (Table 127). Household and personal items including a leather bag, a pre-1926 shoe (IMACS

1992), a possible planter fragment, a milled wood disk, and a strap or handle were collected from Stratum Id. A wood/cloth item and a *lauhala* mat fragment were collected from Strata Ie/II (SIHP #-7189).

A brick fragment was collected from the backdirt in T-133 (Table 128). Household and personal items, including a nail, three flower pot or planter base fragments, and one rim fragment, a ceramic marble, and a toothpaste jar lid were collected from T-134 (Table 129). Of these, the lid and two of the flower pot fragments were collected from Stratum If, SIHP #-7189. The lid was from a toothpaste jar with the words “Tooth Paste,” “The Queen,” “And preserving the teeth & gums,” and “[Gosnell] & Co., London”; the trademark was used from 1853 to 1914 (Gosnell Org. 2013).

A shoe lacking nail holes, which indicates that it was glued and dates to post-1926 (IMACS 1992), was collected from T-136, Stratum Ih (Table 130). A similar shoe was collected from T-137, Stratum Ib, with other personal and household items including a mother-of-pearl disk, a plastic soda bottle made of polyethylene terephthalate (PET) with a screw-top that dates to 1973 (Wikipedia 2013c), a ceramic and metal fuse, and a flowerpot or planter fragment (Table 131). Also collected from T-137 were a standard sized brick fragment that was manufactured between 1918 and 1978 (Meide 1994:25), and a metal machine part.

Personal items consisting of a marble was collected from T-138, Stratum Ib (Table 132) and a bone toothbrush handle was collected from T-139, Stratum Ib (Table 133). Construction and unknown materials were collected from T-141, including a brick fragment, composite fragments, small rocks, a metal fragment, and a plastic fragment (Table 134). Of these, the plastic and metal fragments were collected from SIHP #-5820 Feature 1.

A plastic fragment was collected from T-142 (Table 135). Artifacts/fragments collected from T-143, Stratum Id, included construction materials, personal items, and household items. Construction materials consisted of a standard size brick fragment manufactured from 1918 to 1978 (Meide 1994:25), a milled plank fragment, three wire nails (exported to Hawai'i after 1894; Hurst and Allen 1992:59), metal sheathing, window glass fragments, and possible roof slate (Table 136). Personal items consisted of a porcelain button that has a metal shank instead of button holes; porcelain buttons date from 1850 to 1920 (IMACS 1992). Light bulb fragments and several unknown fragments of composite and metal material also were collected from Stratum Id. A child's shoe fragment was collected from Stratum II.

A bone toothbrush fragment was collected from T-148A, Stratum Ib (Table 137). Building materials consisting of two brick fragments, one of which dates from 1886 to 1918 and the other circa 1900 (Meide 1994:25), were collected along with a ceramic marble from T-149 (Table 138). Three brick fragments, two of which date from 1918 to 1978 were collected from T-150 (Table 139). A similar brick fragment that dates to the same period was collected from T-151, SIHP #-5820 Feature 23 (Table 140). A single window glass fragment was collected from T-152 (Table 141).

Table 112. West Kaka'ako, T-117, Miscellaneous Historic Artifacts

Acc. # 117-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
20	T-117, St. Ic	Brick	Composite	Complete	1	9.0 (L) x 7.0 (W) cm.	Composite material brick; textured surface with glazed face; dark brown
21	T-117, St. Ic	Brick	Fired clay	Fragment	3	--	Three fragments light brown
22	T-117, St. Ic	Nails and rusted chunks	Metal	Fragment	7	--	Nails and rusted chunks; seven pieces
23	T-117, St. Ic	Pebble, rounded	Stone	Complete	1	1.5 (L) x 0.5 (W) cm.	Dark gray color
24	T-117, St. Ic	Pipe stem	Wood	Complete	1	4.5 (L) x 1.0 (W) cm.	Pipe stem
25	T-117, St. Ic	Plastic item	Plastic	Fragment	1	--	Hard, dark gray
26	T-117, St. Ic	Rubber	Rubber	Fragment	1	--	
27	T-117, St. Ic	Sewer pipe?	Ceramic	Fragment	1	--	Thick ceramic salt-glazed curved fragment
28	T-117, St. Ic	Window glass	Glass	Fragment	2	--	Clear small fragment

Table 113. West Kaka'ako, T-119, Miscellaneous Historic Artifacts

Acc. # 119-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-119, St. Ic	Brick	Fired clay	Fragment	6	N/A	Red color
2	T-119, St. Ic	Brick	Fired clay	Fragment	1	4 1/2 + x 4 1/4 x 2 1/2 in.	Red color; age: 1807–1860 (Meide 1994:25)

Table 114. West Kaka'ako, T-119A, Miscellaneous Historic Artifacts

Acc. # 119A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
4	T-119A, St. Ib	Stone block	Stone	Fragment	1	6.8+ (L) x 5.4 (w) x 4.0+ (T) cm.	Rectangular block; smooth outer surface
5	T-119A, St. Ic	Brick	Fired clay	Fragment	2	8 1/4 x 3 3/4 x 1 3/4 in.	Brick; reddish brown; age: 1807–1860 (Meide 1994:25)

Acc. # 119A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
6	T-119A, SIHP #-7428, Feature 1a	Tag	Metal	Complete	1	5.1 (L) x 2.4 (W) x 0.1 (T) cm.	Thin oval metal plate with two holes; has a picture of a carriage and "FISHER" (post-1908) (Wikipedia 2013d)
7	T-119A, SIHP #-7428, Feature 1a	Cobble	Stone	Complete	1	4.0 (L) x 3.0 (W) x 0.5 (T) cm.	Waterworn cobble; tabular; polished; possible cobblestone or ballast stone?
8	T-119A, SIHP #-7428, Feature 1a	Pebble, rounded	Stone	Complete	1	3.1 (L) x 2.8 (W) x 1.6 (T) cm.	Waterworn pebble; unpolished; round
9	T-119A, SIHP #-7428, Feature 1a	Pebble, rounded	Stone	Complete	1	3.2 (L) x 2.8 (W) x 0.4 (T) cm.	Waterworn pebble; slightly polished; oblate
10	T-119A, SIHP #-7428, Feature 1a	Stone/marble mass	Stone	Fragment	1	--	

Table 115. West Kaka'ako, T-120, Miscellaneous Historic Artifacts

Acc. # 120A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-120, St. Id	Brick	Fired clay	Fragment	2	N/A	Red color
2	T-120, St. Id	Brick	Fired clay	Fragment	1	3 1/2 + x 4 x 2 1/4 in.	Red color; machine-made; age: 1886 to 1918 (Meide 1994:25)

Table 116. West Kaka'ako, T-120A, Miscellaneous Historic Artifacts

Acc. # 120A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-120A, SIHP #-7428, Feature 11	Glass, worked	Glass	Fragment	1	5.3 (L) x 2.4 (W) cm.	Glass chipped for cutting edge; clear glass; post-1870

Table 117. West Kaka'ako, T-121, Miscellaneous Historic Artifacts

Acc. # 121-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
5	T-121, St. Ic	Brick	Fired clay	Fragment	1	3.2 (L) x 6.2 (W) cm.	Red color; machine-made
6	T-121, St. Ic	Insulator	Ceramic	Complete	1	5.0 (D) x 3.0 (H) cm.	White porcelain; hole in middle with metal; spindle-shaped

Table 118. West Kaka'ako, T-122, Miscellaneous Historic Artifacts

Acc. # 122-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
2	T-122, St. Ie	Brick	Fired clay	Fragment	1	3+ x 3 3/4 x 2 1/2 in.	Red color, machine-made. Age: 1918 to 1978 (Meide 1994:25)

Table 119. West Kaka'ako, T-123, Miscellaneous Historic Artifacts

Acc. # 123-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
2	T-123, St. II, SIHP #-2963	Insulator	Ceramic	Complete	1	4.1 (D) x 3.5 (H) cm.	White porcelain; large hole in top and small hole in bottom

Table 120. West Kaka'ako, T-124, Miscellaneous Historic Artifacts

Acc. # 124-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
6	T-124, St. Id	Brick	Fired clay	Fragment	1	4.2+ (L) cm.	Red interior, buff exterior, small fragment
7	T-124, St. Id	Nail	Metal	Fragment	1	5.1 (L) cm.	Too corroded to see cross-section shape
8	T-124, St. Id	Pipe stem/ cigarette holder	Bone	Complete	1	2.1 (L) x 1.0 (D) cm.	Carved hollow; polished bone with mouthpiece

Table 121. West Kaka'ako, T-125, Miscellaneous Historic Artifacts

Acc. # 125-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
16	T-125, St. Id	Earring, hoop	Metal-gold	Complete	1	2.2 (W) x 1.0 (T) cm.	Geometric pattern incised on surface
17	T-125, St. Id	Window glass	Glass	Fragment	1	--	Clear small fragment
18	T-125, St. Id	Brick	Fired clay	Fragment	2	N/A	Red color
19	T-125, St. Id	Unknown	Metal	Fragment	1	13.0 (L) x 0.9 (D) cm.	Tubular; heavy rod
20	T-125, St. Ie	Spoon	Metal	Complete	1	7.0 (L) x 2.5 (W) cm.	Simple - no decoration
21	T-125, St. Ie	Strap? hinge?	Metal	Fragment	1	3.2 (L) cm.	
22	T-125, St. Ie	Wire	Metal	Fragment	1	3.4 (L) cm.	

Table 122. West Kaka'ako, T-126, Miscellaneous Historic Artifacts

Acc. # 126-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
8	T-126, St. Ic	Brick	Fired clay	Complete	1	8 x 3 3/4 x 2 1/2 in.	Red color; machine-made; rectangular; age: 1918 to 1978 (Meide 1994:25)
9	T-126, St. Ic	Brick	Fired clay	Fragment	1	4+ x 4 x 2 1/4 in.	Red color; machine-made; age: 1886 to 1918 (Meide 1994:25)
10	T-126, St. Ic	Spike	Metal	Fragment	1	8.5+ (L) cm.	Iron

Table 123. West Kaka'ako, T-127, Miscellaneous Historic Artifacts

Acc. # 127-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
5	T-127, St. Ic	Pressed glass	Glass	Rim fragment	1	--	Possible lamp base or dish; clear; stem and leaf pattern
6	T-127, St. Ic	Brick	Fired clay	Fragment	1	N/A x N/A x 3/4 in.	Red color; machine-made
7	T-127, St. Ic	Spade (shovel)	Metal, iron	Complete	1	54.0 (L) x 23.0 (W) x 0.5 (T) cm.	Spade and end hollow; metal ferrule that goes over wooden handle
8	T-127, St. Ic	Nail	Metal, iron	Fragment	1	3.9 (L) cm.	Corroded; head missing

Acc. # 127-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
9	T-127, St. Ic	Brick	Fired clay	Fragment	2	N/A	Red color
10	T-127, St. Ic	Strap/hinge	Metal	Fragment	1	--	Corroded

Table 124. West Kaka'ako, T-129, Miscellaneous Historic Artifacts

Acc. # 129-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
7	T-129, St. II	Brick	Fired clay	Complete	1	8 x 3 3/4 x 2 in.	Red color; machine-made; rectangular
8	T-129, St. II	Brick	Fired clay	Fragment	1	4+ x 4 x 2 1/4 in.	Red color; trailings; possibly extruded; age: 1886-1918 (Meide 1994:25)

Table 125. West Kaka'ako, T-130, Miscellaneous Historic Artifacts

Acc. # 130-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
20	T-130, St. Ii, SIHP #-7189	Shoe, human	Leather	Sole/heel	1	18.2 (L) x 5.0 (W) x 2.3 (T) cm.	Woman's or child's shoe; many holes for nails (ca. pre-1926; IMACS 1992)
21	T-130, St. Ii, SIHP #-7189	Marble	Glass	Complete	1	1.9 (D) cm.	Blue opaque; pitted, with flat spots
22	T-130, St. Ii, SIHP #-7189	Horseshoe	Metal	Complete	1	13.4 (L) x 12.2 (W) x 1.3 (T) cm.	Iron

Table 126. West Kaka'ako, T-131, Miscellaneous Historic Artifacts

Acc. # 131-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
15	T-131, St. Id	Bucket	Plastic	Complete	1	23.5 (H) x 22.0 (D) cm.	Bucket with metal handle; ACL "CA..."
16	T-131, St. Id	Planter	Ceramic	Base	1	--	Base fragment; brown slip glaze

Table 127. West Kaka'ako, T-132, Miscellaneous Historic Artifacts

Acc. # 132-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
53	T-132, St. Id, SIHP #-7124	Brick	Fired clay	Fragment	1	3 1/2+ x 3 3/4 x 2 1/2 in.	Orange color; machine-made; age: 1918-1978 (Meide 1994:25)
54	T-132, St. Id, SIHP #-7124	Brick	Fired clay	Fragment	1	4 1/4+ x 3 3/4 x 2 1/2 in.	Red color; machine-made; age: 1918-1978 (Meide 1994:25)
55	T-132, St. Id, SIHP #-7124	Brick	Fired clay	Fragment	1	N/A x N/A x 2 1/2 in.	Red color; machine-made; age: 1918-1978 (Meide 1994:25)
56	T-132, St. Id	Unidentified	Fired clay	Fragment	2	--	Not brick
57	T-132, St. Id	Bag	Leather	Complete	1	13.0 (L) cm.	Pinched and tied with string on each end
58	T-132, St. Id	Milled wood disk	Wood	Complete	1	14.0 (D) x 1.2 (T) cm.	Circular disk; unknown function
59	T-132, St. Id	Shoe, human	Leather	Sole	1	16.8 (L) x 8.3 (W) x 0.3 (T) cm.	A few holes for nails (ca. pre-1926; IMACS 1992)
60	T-132, St. Id	Strap? handle?	Metal	Complete	1	19.0 (L) x 2.2 (W) x 0.3 (T) cm.	Hole at end
61	T-132, St. Id	Planter?	Earthenware	Fragment	1	--	Brown slip glaze
62	T-132, St. Id	Machine part - rod	Metal	Fragment	1	18.0 (L) x 0.3 (D) cm.	Solid tubular object; unknown function
63	T-132, St. Id, SIHP #-7189	Unknown	Composite	Fragment	5	4.2+ (L) cm.	Wood and cloth; dyed red on exterior with mesh pattern
64	T-132, St. Id SIHP #-7189	<i>Lauhala</i> mat	<i>Lauhala</i>	Fragment	1	--	Woven mat

Table 128. West Kaka'ako, T-133, Miscellaneous Historic Artifacts

Acc. # 133-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
4	T-133, St. Ic-Ig, Backdirt	Brick	Fired clay	Fragment	1	4 1/2+ x 3 1/2 x 2 in.	Red color; machine-made

Table 129. West Kaka'ako, T-134, Miscellaneous Historic Artifacts

Acc. # 134-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
24	T-134, St. If, SIHP #-7189	Toothpaste jar lid	Ceramic	Fragment	1	8.5 cm (dia.)	Transfer print - color version; Queen Victoria on lid, with words "Tooth Paste," "The Queen," "And preserving the teeth & gums," and "[Gosnell] & Co., London"; mark used from 1853-1914 (Gosnell.Org 2013)
25	T-134, St. Ib	Flower pot/planter	Earthenware	Rim	1	--	Rim fragment; glazed
26	T-134, St. Ic	Marble	Ceramic	Complete	1	1.7 cm (dia.)	Porcelain marble spattered and mottled with blue and yellow/brown glaze lead glaze
27	T-134, St. Ie	Flower pot/planter	Earthenware	Base	1	--	Base fragment; unglazed
28	T-134, St. If, SIHP #-7189	Flower pot/planter	Earthenware	Base	1	5.0 (H) cm.	Base fragment; unglazed
29	T-134, St. If, SIHP #-7189	Flowerpot/planter	Earthenware	Base	1	--	Base fragment; unglazed
30	T-134, St. Ib	Nail	Metal	Fragment	1	--	Very corroded

Table 130. West Kaka'ako, T-136, Miscellaneous Historic Artifacts

Acc. # 136-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
3	T-136, St. Ih	Shoe, human	Leather	Sole/heel	1	20.5 (L) x 7.7 (W) x 0.3 (T) cm.	No holes for nails (glued; post-1926, IMACS 1992)

Table 131. West Kaka'ako, T-137, Miscellaneous Historic Artifacts

Acc. # 137-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
3	T-137, St. Ib	Flower pot/ planter	Earthenware	Base to rim	1	12.5 (D) x 17.5 (H) cm.	Base to rim fragment; glazed with molded flutes
4	T-137, St. Ib	Brick	Fired clay	Fragment	1	3 3/4 x 3 3/4 x 2 1/4 in.	Red color; machine-made; age: 1918-1978 (Meide 1994:25)
5	T-137, St. Ib	Fuse	Composite	Fragment	1	--	Ceramic and metal
6	T-137, St. Ib	Mother-of-pearl disk	Shell	Complete	1	3.0 (D) cm.	Thin disk; unknown function
7	T-137, St. Ib	Bottle, soda	Plastic	Complete	1	21.5 (L) cm.	White plastic screwtop; the PET bottle was patented in 1973 (Wikipedia 2013c)
8	T-137, St. Ib	Machine part - rod	Metal	Fragment	1	41.0 (L) x 5.5 (D) cm.	Rusted iron
9	T-137, St. Ib	Shoe, human	Leather	Heel	1	7.1 (L) x 6.0 (W) x 1.8 (T) cm.	No holes along sides (glued; post- 1926; IMACS 1992)

Table 132. West Kaka'ako, T-138, Miscellaneous Historic Artifacts

Acc. # 138-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
9	T-138, St. Ib	Marble	Glass	Complete	1	1.2 (D) cm.	White, purple and gray swirls; opaque

Table 133. West Kaka'ako, T-139, Miscellaneous Historic Artifacts

Acc. # 139-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-139, St. Ib	Toothbrush handle	Bone	Fragment	1	8.5 (L) x 1.0 (W) cm.	Polished bone

Table 134. West Kaka'ako, T-141, Miscellaneous Historic Artifacts

Acc. # 141-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
8	T-141, SIHP #-5820, Feature 1	Rock	Stone	Complete	1	--	Small rock; dark brown, orange, and grey in color
9	T-141, St. Id	Brick	Fired clay	Fragment	1	N/A x N/A x 2 3/4 in.	Red color; machine-made
10	T-141, SIHP #-5820, Feature 1	Unknown	Plastic	Fragment	1	--	Disc-shaped
11	T-141, SIHP #-5820, Feature 1	Unknown	Metal	Fragment	1	6.2 (L) x 1.8 (D) cm.	Corroded tubular item

Table 135. West Kaka'ako, T-142, Miscellaneous Historic Artifacts

Acc. # 142-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
7	T-142, St. Ic	Unknown	Plastic	Fragment	1	2.0 (W) x 0.7 (T) cm.	Soft plastic; possible fastener function

Table 136. West Kaka'ako, T-143, Miscellaneous Historic Artifacts

Acc. # 143-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
37	T-143, St. Id	Brick	Fired clay	Fragment	1	5+ x 3 3/4 x 2 1/2 in.	Red color; machine-made; age: 1918-1978 (Meide 1994:25)
38	T-143, St. Id	Button	Porcelain	Complete	1	--	No holes; wire shank; age: 1850 to 1920 (IMACS 1992)
39	T-143, St. Id,	Window glass	Glass	Fragment	11	--	Clear small fragment
40	T-143, St. Id	Light bulb, lamp	Glass	Fragment	4	--	Clear
41	T-143, St. Id	Milled plank	Wood	Fragment	1	--	Wood with nail
42	T-143, St. Id	Nail	Metal	Fragment	11	--	Corroded, but probably wire nails/brads; age: ca. 1850 to the present (IMACS 1992)

Acc. # 143-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
43	T-143, St. Id	Nail, wire	Metal	Complete	1	2.2 (L) cm.	Nail with flagging tape; age: ca. 1890 to the present (IMACS 1992)
44	T-143, St. Id	Nail/brad	Metal	Fragment	6	--	Corroded; age: ca. 1850 to the present (IMACS 1992)
45	T-143, St. Id	Pebble	Stone	Complete	1	2.1 (D) cm.	Oval pebble
46	T-143, St. Id	Sheathing for unknown item	Metal	Fragment	2	--	Flat; thin; copper
47	T-143, St. Id	Slate	Slate	Fragment	6	--	Roofing item?
48	T-143, St. Id	Unknown	Composite	Fragment	3	--	Fused mass - charcoal, metal, etc.
49	T-143, St. Id	Unknown	Metal	Fragment	5	--	Flat; corroded
50	T-143, St. II	Shoe - sole and heel	Leather	Fragment	1	14.0 (L) x 5.8 (W) x 0.2 (T) cm.	Heel not built-up; children's heel

Table 137. West Kaka'ako, T-148A Miscellaneous Historic Artifacts

Acc. # 148A-A-	Provenience	Type	Material	Portion	No.	Measurements	Description
8	T-148A, St. Ib	Toothbrush handle	Bone	Fragment	1	8.2 (L) x 1.8 (W) cm.	Flat on one side; convex on other; polished; hole at one end; incised circles near brush part

Table 138. West Kaka'ako, T-149, Miscellaneous Historic Artifacts

Acc. # 149-A-	Provenience	Type	Material	Portion	No.	Measurements	Description
3	T-149, St. Ie	Brick	Fired clay	Fragment	1	2 1/2+ x 4 x 2 1/4 in.	Red color; machine-made; age: 1886-1918 (Meide 1994:25)
4	T-149, St. Ie	Brick	Fired clay	Fragment	1	4+ x 4 x 2 1/2 in.	Red color; machine-made; age: ca. 1900 (Meide 1994:25)
5	T-149, St. Ib	Marble	Ceramic	Complete	1	--	Porcelain; red/white

Table 139. West Kaka'ako, T-150, Miscellaneous Historic Artifacts

Acc. # 150-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-150, St. Ic	Brick	Fired clay	Complete	1	8 x 3 3/4 x 2 1/2 in.	Red color; machine-made; rectangular; age: 1918-1978 (Meide 1994:25)
2	T-150, St. Ic	Brick	Fired clay	Complete	1	8 x 3 3/4 x 2 1/2 in.	Red color; machine-made; rectangular; age: 1918-1978 (Meide 1994:25)
3	T-150, St. Ic	Brick	Fired clay	Fragment	1	2 3/4+ 3 3/4 x N/A in.	Red color; machine-made

Table 140. West Kaka'ako, T-151, Miscellaneous Historic Artifacts

Acc. # 151-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-151, SIHP #-5820 Feature 23	Brick	Fired clay	Fragment	1	3 1/2+ 3 3/4 x 2 1/2 in.	Red color; machine-made; age: 1918-1978 (Meide 1994:25)

Table 141. West Kaka'ako, T-152, Miscellaneous Historic Artifacts

Acc. # 152-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
4	T-152, St. Ig	Window glass	Glass	Fragment	1	--	Clear small fragment

4.11.4 Summary of Artifact Assemblage from West Kaka'ako

A large number of diverse types of historic artifacts were collected from the West Kaka'ako area. Ceramics consisted of Asian, Euro-American, and British wares, some that could be dated to the second half of the nineteenth century. The bottles also fell within this period and some had an even narrower date range, from ca. 1880-1900. There were no machine-made bottles (post-1903). The collection contained a variety of patent medicine bottles, spirits bottles, beer bottles, soda bottles, beverage bottles, and non-food bottles. The bottles were made or filled for products in America, Scotland, the Netherlands, England, and as far away as Norway. The miscellaneous items represented both domestic artifacts and construction material. Kaka'ako for a while was the great dumping ground and trash incinerator for the garbage produced within the Honolulu District, especially within the late nineteenth century and early twentieth century when a great push was made to fill in the former fishponds, saltponds, swamps, and low areas in preparation for the residential and commercial development of the area.

4.12 Artifact Analysis Kewalo (Test Excavations 162 through 178)

Historic artifacts were collected from 11 of the 24 test excavations in Kewalo (T-164, T-165, T-167, T-168B, T-169, T-171, T-172, T-172A, T-174A, T-175A, and T-178A). A total of 78 historic artifact fragments were collected, consisting of 1 ceramic vessel fragment, 11 glass bottle/bottle fragments, and 66 miscellaneous items.

Historic artifacts were collected from one cultural resource: SIHP #50-80-14-7429 (T-167 Feature 3 and T-169 Stratum II).

4.12.1 Ceramics

One small body fragment of a Euro-American whiteware vessel was collected from T-172A, Stratum Ic (Table 142). The fragment did not have any distinguishing design motif or markings.

4.12.2 Bottles

T-164

One brown base/body bottle glass fragment was collected from T-164, Stratum Ie (Table 143). The fragment was large enough to show the absence of mold seams, so it probably dates before 1920 when most bottles were made in a two-piece cup mold.

T-168B

One base fragment from a bottle was collected from T-168, Stratum Ic (Table 144). The bottle was made by the Owens Glass Co., who used an "O" in a square base mark from 1911 to 1929 (Toulouse 1971:393).

T-171

One body bottle fragment was collected from T-171, Stratum Ib/Ic (Table 145). The fragment is clear with a manganese tint and embossing. The only O'ahu bottler that matches the partial embossing is the Consolidated Soda Works of Honolulu (originally on Fort Street in downtown Honolulu), which was a merger of several bottlers founded in 1894 (Elliott 1971:250). The addition of manganese to clear glass was made from the 1870s to ca. 1913.

T-172

Three clear glass fragments, all part of a crown ABM lip, were found in T-172, Stratum Id (Table 146). The ABM lip dates the bottle to post-1907.

T-172A

Five glass fragments from a minimum of four bottles, three of clear glass and one of olive glass were collected from T-172A, Stratum Ic and Strata Ih/Ii (Table 147). One of the clear glass fragments may belong to a bottle for Smile Soda, a brand for the Orange Smile Co., founded in the 1920s. This brand was bottled at the Sunrise Soda Water Works on Oahu, and later by the Seven-up Bottle Co. of Honolulu. The Sunrise Soda works was located in Kapālama from 1907 up to 1927 (Elliott 1971:31). The brand was later acquired by the Seven-up Company and bottled at their plant. In Millar's (1988: Oahu 241-245) book on machine-made Hawaiian sodas, several ACL label Smile bottles are dated to the 1950s and 1960s, suggesting the embossed types with crown lips are earlier, probably dating to the 1920s-1940s.

Table 142. Kewalo, T-172A, Ceramic Vessels

Acc. # 172A-A	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-172A, St. Ic	Tableware - unidentified	Body	1	Refined earthenware	Whiteware	None	--	Euro-American	

Table 143. Kewalo, T-164, Glass Bottles

Acc. # 164-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-164, St. Ic	Bottle, beverage	Base- body	1	--	--	Brown	5.0+	6.5	Round	No seams	pre- 1920	Dimple on base

Table 144. Kewalo, T-168B, Glass Bottles

Acc. # 168B - A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-168B, St. Ic	Bottle, beverage	Base	1	--	--	Clear	--	--	--	-	1911- 1929	"O" in square embossed on base; Owens Glass Co. mark, used 1911-1929 (Toulouse 1971:393)

Table 145. Kewalo, T-171, Glass Bottles

Acc. # 171-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-171, St. Ib/Ic	Bottle, soda	Body	1	--	--	Clear	--	--	--	--	1890s- 1913	"...ED/ ...ORKS CO/ 4" embossed on body horizontally; Manganese addition; (Consolidated Soda Works, Honolulu?)

Table 146. Kewalo, T-172, Glass Bottles

Acc. # 172-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-172, St. Id	Bottle	Neck- lip	3	Crown	ABM	Clear	--	--	--	2 pc.	1907- present	

Table 147. Kewalo, T-172A, Glass Bottles

Acc. # 172A- A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
2	T-172A, St. Ic	Bottle, soda	Body- lip	1	Crown	ABM	Clear	--	--	Round	2 pc. cup	1920s- 1940s	Bottle has textured patterns and has embossed "Smile" on both sides of body horizontally; Smile Soda Water Works, O'ahu
3	T-172A, St. Ic	Bottle	Body	1	--	--	Olive	--	--	--	--		
4	T-172A, St. Ic	Bottle	Body	2	--	--	Clear	--	--	--	--	1870s- post	
5	T-172A, St. Ih/Ii, mixed pit fill	Bottle	Body	1	--	--	Clear	--	--	--	--	1870s- post	

4.12.3 Miscellaneous Historic Artifacts

Miscellaneous historic artifacts consisting primarily of building materials were collected from nine of the Kewalo test excavations.

A rail spike, possibly relating to the Honolulu streetcar system that operated from 1898 to 1933 (Simpson and Brizdle 2000:43, 124) and a deteriorated milled wood plank fragment were collected from T-164 (Table 148). A single corroded nail was collected from T-165 (Table 149) and two electrical insulators, one glass, the other composite, were collected from T-167 (Table 150). One had an embossed B, the mark used by the Bushwick/Brookfield Co., which made insulators from 1864 to 1921 (Whitten 2013).

In addition to one machine-cut tile, a marble and a bone toothbrush handle were collected from T-168B (Table 151). Four marbles, one glass and three clay marbles, were collected from T-169, Stratum II, SIHP #-7429, along with a worked glass fragment and an asphalt pavement fragment (Table 152). One standard size brick fragment dating from 1886 to 1978 (Meide 1994:25) was collected from T-172 (Table 153). A total of 46 tile fragments were collected from T-172A (Table 154). One has a legible company name, Redondo, which is a Mexican company that has been making tile since the beginning of the nineteenth century. Also collected was a single wire nail; wire nails were first imported into Hawai'i in 1894 (Hurst and Allen 1992:59).

One brick with non-standard measurements was collected from T-174A (Table 155). A single basalt stone was collected from T-175A from Stratum III (Table 156), and a standard size brick dating from 1918 to 1978 was collected from T-178A (Table 157).

Table 148. Kewalo, T-164, Miscellaneous Historic Artifacts

Acc. # 164-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
2	T-164, St. Ic	Spike, rail	Metal	Fragment	1	22.5 (L) x 2.0 (D) cm.	Head broken off, round cross-section, end bi-tapered. Age: 1898-1933 (Simpson and Brizdle 2000:43, 124)
3	T-164, St. Ie	Milled plank	Wood	Fragment	1	13.1+ (L) x 2.5 (W) x 2.0 (T) cm.	Very deteriorated

Table 149. Kewalo, T-165, Miscellaneous Historic Artifacts

Acc. # 165-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-165, St. Id	Nail	Metal	Fragment	1	5.0+ (L) cm.	Too corroded to see cross-section shape

Table 150. Kewalo, T-167, Miscellaneous Historic Artifacts

Acc. # 167-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-167, SIHP #-7429 Feature 3	Insulator	Glass	Fragment	2	--	Embossed "B" in center; Bushwick/Brookfield Glass Works, 1864-1921 (Whitten 2013)
2	T-167, St. Ig	Insulator	Composite	Fragment	1	3.1 (D) x 1.8 (H) cm.	Porcelain disc with perpendicular metal rod

Table 151. Kewalo, T-168B, Miscellaneous Historic Artifacts

Acc. # 168B-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
2	T-168B, St. Ic	Marble	Glass	Complete	1	2.1 (D)	White with yellow wavy lines
3	T-168B, St. Ic	Tile	Earthenware	Complete	1	5.5 (L) x 2.5 (W) x 1.1 (T) cm.	Curved tile; machine-cut on ends; impressed "N USA" on side

Acc. # 168B-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
4	T-168B, St. Ic	Toothbrush handle	Bone	Fragment	1	9.5+ (L) x 1.1 (W) x 0.2 (T) cm.	Made of two layers of bone; hole in end

Table 152. Kewalo, T-169, Miscellaneous Historic Artifacts

Acc. # 169-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-169, St. II, SIHP #-7429	Marble	Glass	Fragment	1	--	Broken; green; opaque
2	T-169, St. II, SIHP #-7429	Marble	Clay	Complete	1	1.8 (D) cm.	Fairly round; light brown
3	T-169, St. II, SIHP #-7429	Marble	Clay	Complete	1	1.8 (D) cm.	Fairly round; pinkish brown
4	T-169, St. II, SIHP #-7429	Marble	Clay	Complete	1	2.0 (D) cm.	Red; one flattened end
5	T-169, St. II, SIHP #-7429	Glass, worked	Glass	Fragment	1	2.1+ (L) x 0.4 (W) x 0.3 (T) cm.	Worked on one edge, possibly for cutting; clear glass; does not look old
6	T-169, Id/Ie	Asphalt pavement	Composite	Fragment	1	13.5+ (L) x 4.5 (T) cm.	Asphalt with thin layer of concrete/mortar on both sides

Table 153. Kewalo, T-172, Miscellaneous Historic Artifacts

Acc. # 172-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
2	T-172, St. Id	Brick	Fired clay	Fragment	1	N/A x N/A x 2 1/4 in.	Red color; machine-made; age: 1886-1978 (Meide 1994:25)

Table 154. Kewalo, T-172A, Miscellaneous Historic Artifacts

Acc. # 172A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
6	T-172A, St. Ic	Tile	Earthenware	Fragment	2	--	Grey-blue; stippled texture
7	T-172A, St. Ic	Tile	Earthenware	Fragment	6	--	Beige
8	T-172A, St. Ic	Tile	Earthenware	Fragment	1	--	Five blue tiles connected on mortar strip
9	T-172A, St. Ic	Tile	Earthenware	Fragment	1	--	Blue glaze; rough texture
10	T-172A, St. Ic	Tile	Earthenware	Fragment	1	--	Blue-green glaze; underside has two circular indentations and letters "NGM"
11	T-172A, St. Ic	Tile	Earthenware	Fragment	1	--	Bluish-white glaze; piece has triangular shape
12	T-172A, St. Ic	Tile	Earthenware	Fragment	1	--	Light green glaze; piece has lined pattern on underside and letter "A" on underside
13	T-172A, St. Ic	Tile	Earthenware	Fragment	2	--	White glaze; tile surface has rough texture
14	T-172A, St. Ic	Tile	Earthenware	Fragment	1	--	Yellow glaze; letters on underside of frag include "FRMOSA" "MARK"
15	T-172A, St. Ic	Tile	Earthenware	Fragment	2	--	Black glaze
16	T-172A, St. Ic	Tile	Earthenware	Fragment	1	--	Blue glaze; curved
17	T-172A, St. Ic	Tile	Earthenware	Fragment	5	--	Very pale blue-gey color; ribbed underside; one fragment has "REDONDO / TRUSIZE" on back and another has "ZE"
18	T-172A, St. Ic	Tile	Earthenware	Fragment	7	--	Sample includes seven similar tile fragments, light blue and white
19	T-172A, St. Ic	Tile	Earthenware	Fragment	1	--	Green glaze; fragment has curved rim

Acc. # 172A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
20	T-172A, St. Ic	Tile	Earthenware	Fragment	1	--	Grey glaze; tile surface has two-tone color and bumpy texture
21	T-172A, St. Ic	Tile	Earthenware	Fragment	2	--	Light orange fragments; one has letters "RED" and "TRU" on underside
22	T-172A, St. Ic	Tile	Earthenware	Fragment	3	--	White glaze
23	T-172A, St. Ic	Tile	Earthenware	Fragment	1	--	Yellow glaze
24	T-172A, St. Ic	Tile	Earthenware	Fragment	1	--	Pale green and white glaze
25	T-172A, St. Ic	Tile	Earthenware	Fragment	3	--	Brown colored tiles
26	T-172A, St. Ic	Tile	Earthenware	Fragment	2	--	Red colored tiles
27	T-172A, St. Ic	Tile	Earthenware	Fragment	1	--	Grey-blue; curved; rough texture
28	T-172A, St. Ic	Nail, wire	Metal	Complete	1	5.5 (L) cm.	Round head; age: ca. 1850 to the present (IMACS 1992)

Table 155. Kewalo, T-174A, Miscellaneous Historic Artifacts

Acc. # 174A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-174A, St. Id	Brick	Fired clay	Fragment	1	5 1/2+ x 3 1/2 x 2 1/4	Red color; machine-made

Table 156. Kewalo, T-175A, Miscellaneous Historic Artifacts

Acc. # 175A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-175A, St. III	Stone	Basalt	Fragment	1	--	Does not appear to be culturally modified

Table 157. Kewalo, T-178A, Miscellaneous Historic Artifacts

Acc. # 178A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-178A, St. Ic	Brick	Fired clay	Fragment	1	5+ x 3 3/4 x 2 1/4 in.	Red color; machine-made; age: 1918 to 1978 (Meide 1994:25)

4.12.4 Summary of Artifact Assemblage from Kewalo

The artifact assemblage from the Kewalo area has only one ceramic fragment. Bottles generally are dated to the early twentieth century in the machine-blown era, which is in contrast to the Honolulu Waterfront area in which most bottles are mold-blown in the pre-1870s–1920s period. Much of this trash may result from commercial refuse, rather than domestic refuse.

4.13 Artifact Analysis for East Kaka‘ako (Test Excavations 179 through 197)

Only two historic artifacts, both from T-196 were collected from the nineteen test excavations in East Kaka‘ako.

4.13.1 Ceramics

No ceramic vessel fragments were collected from East Kaka‘ako .

4.13.2 Bottles

T-196

Two bottle fragments, from an olive bottle and a clear milk bottle, were collected from the backdirt pile of Stratum II for T-196 (Table 158). The clear milk bottle, with a capseat lip, probably post-dates 1870 based on the color.

4.13.3 Miscellaneous Artifacts

No miscellaneous artifacts were observed from East Kaka‘ako test excavations.

4.13.4 Summary of Artifact Assemblage from East Kaka‘ako

Only two historic artifacts were collected from the East Kaka‘ako test excavations. One of the bottles likely was manufactured anytime after 1870 to the mid- to late-1900s.

Table 158. East Kaka'ako, T-196, Glass Bottles

Acc. # 196-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-196, St. II	Unidentified	Body	1	--	--	Olive	--	--	--	--		Small fragment
2	T-196, St. II	Bottle, milk	Neck-- lip	1	Capseat lip	--	Clear	--	--	--	--	1870- post	

4.14 Artifact Analysis for Kālia (Test Excavations 198 through 225)

Historic artifacts were collected from seven of the 27 test excavations within Kālia (T-198, T-200, T-202, T-202A, T-203, T-214, and T-222). A total of 85 historic artifact fragments were collected, including 5 ceramic vessel fragments, 17 glass bottle/bottle fragments, and 63 miscellaneous items. Historic artifacts were collected from three cultural resources: the Kewalo wetland sediments, designated SIHP #50-80-14-6636 (T-198 Stratum II; T-200 Stratum IIb; and T-202A Stratum IIa), a historic privy, designated SIHP #50-80-14-7430 (T-202 Feature 1), and a historic trash pit, designated SIHP #50-80-14-7193 (T-214 Stratum IIa).

4.14.1 Ceramics

T-202

Four ceramic fragments from three vessels were collected from T-202, SIHP #-7430 Feature 1 (Table 159). They consist of a Euro-American ironstone bowl, a Japanese porcelain sake cup, and a Chinese porcelain bowl with a “Four Flowers” motif.

T-202A

One Chinese porcelain rice bowl fragment with a “Bamboo” motif was collected from T-202A, Stratum Ie (Table 160).

4.14.2 Bottles

T-200

One complete aqua alcohol bottle was collected from T-200, Stratum IIb (Table 161). It has an applied lip and was made in a two-piece cup mold, dating it from 1870 to the 1890s.

T-202

Eleven bottle/bottle fragments from ten bottles were collected from T-202, SIHP #-7430 Feature 1 (Table 162). The bottles consist of two spirits bottles, three beverage bottles, one boot polish bottle, one medicine bottle for a teeth cleanser, and three glass fragments from three bottles of unknown contents. One boot polish bottle is for “Frank Miller’s Crown Dressing.” Similar polish bottles were found in T-129, T-132, and T-140 in the West Kaka‘ako section. The popularity of this polish may be because it could not only be used to polish shoes and boots, but could also be used on leather harness for mules and horses. Rubifoam for the Teeth was introduced by E. W. Hoyt Co., of Lowell, Mass. in 1889 and was still advertised in 1925 (Fike 1987:65). Four bottles from T-202 have a tooled lip, used between 1870s to 1920, two clear bottles can be dated post 1870s, and two spirits mold-blown bottles with a beveled champagne lip finish can be dated from the 1880s to 1920s.

T-202A

One clear glass jar lip fragment was collected from T-202A, Stratum Ie (Table 163). The color dates this jar to the post-1870s.

T-214

Three glass jars were collected from T-214, Stratum IIa, SIHP #-7193 (Table 164). The bottles were all machine-blown, with glass manufacturer marks dating the bottles to 1920-1964, 1938, and 1951, respectively.

T-222

One complete, clear glass milk bottle was collected from T-222 (Table 165). The bottle was used by the Honolulu Dairymen's Company and has a mark for the Owens-Illinois Glass Co., dating the bottle to 1933 or 1943.

Table 159. Kālia, T-202, Ceramic Vessels

Acc. # 202-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-202, SIHP #-7430, Feature 1	Hollowware - large bowl	Body to rim	1	Porcelain	--	Four Flowers motif, painted overglaze	--	Chinese	Black, orange, red, yellow, and green
2	T-202, SIHP #-7430, Feature 1	Hollowware - sake cup	Base to body	1	Porcelain	--	Floral, painted underglaze	--	Japanese	Red base mark
3	T-202, SIHP #-7430, Feature 1	Hollowware - large bowl	Base	2	Refined earthenware	Ironstone	--	--	Euro- American	Base mark: "PATENT I..."; may be two vessels

Table 160. Kālia, T-202A, Ceramic Vessels

Acc. # 202A-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-202A, St. Ie	Hollowware - rice bowl	Base to rim	1	Porcelain	--	Bamboo motif, painted underglaze	Banded	Chinese	

Table 161. Kālia, T-200, Glass Bottles

Acc. # 200-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-200, St. Iib, SIHP #-6636	Bottle, alcohol	Complete	1	Brandy	Applied	Aqua	31.0	7.5	Round	2 pc. cup	1870- 1890s	"A" on base

Table 162. Kālia, T-202, Glass Bottles

Acc. # 202-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
4	T-202, SIHP #- 7430, Feature 1	Bottle, beverage	Body	2	--	--	Amber	--	--	Round	--		
5	T-202, SIHP #- 7430, Feature 1	Bottle	Body	1	--	--	Aqua	9.5+	4.0	--	--	1880s- 1920s	Tooled lip
6	T-202, SIHP #- 7430, Feature 1	Bottle, boot polish	Complete	1	Patent	Tooled	Clear	12.5	4.5 x 4.5	Square	2 pc. cup	1870s- 1900	"Frank Millers Crown Dressing New York, USA" embossed horizontally on body; "25" embossed on base (Edwards and Critten 1885:146)
7	T-202, SIHP #- 7430, Feature 1	Bottle, medicine	Complete	1	Patent	Tooled	Clear	10.0	2.5 x 5.5	Rectangular	2 pc. cup	1887- 1920s	"Rubifoam for the teeth by E.W. Hoyt & Co. Lowell, Mass" embossed on body horizontally
8	T-202, SIHP #- 7430, Feature 1	Bottle	Body	1	--	--	Green	--	--	Round	--		
9	T-202, SIHP #- 7430, Feature 1	Bottle	Body	1	--	--	Clear	--	--	--	--	1870s- post	
10	T-202, SIHP #- 7430, Feature 1	Bottle, spirits	Lip	1	Champagne	Tooled	Green	--	--	--	--	1880s- 1920s	Tooled lip

Acc. # 202-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
11	T-202, SIHP #- 7430, Feature 1	Bottle, beverage	Base- body	1	--	--	Olive	9.5+	6.5	Round	No seams	pre- 1900	Base: push up
12	T-202, SIHP #- 7430, Feature 1	Bottle, beverage	Base- body	1	--	--	Olive	6.0+	6.0	Round	No seams	pre- 1900	Base: push up
13	T-202, SIHP #- 7430, Feature 1	Bottle, spirits	Complete	1	Champagne	Tooled	Green	25.5	7.0	Round	Turn	1880s- 1920s	Base: kick up

Table 163. Kālia, T-202A, Glass Bottles

Acc. # 202A- A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
2	T-202A, St. Ie	Jar, food	Lip	1	Continuous thread	--	Clear	--	--	Round	--	1920- post	Wide-mouthed jar

Table 164. Kālia, T-214, Glass Bottles

Acc. # 214-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-214, St. Iia, SIHP #-7193	Jar, cosmetic	Complete	1	Continuous thread	ABM	White	--	--	Oval	2-pc. cup	1920- 1964	Hazel-Atlas Glass Co. Woodbury Co.
2	T-214, St. Iia, SIHP #-7193	Jar, sauce	Complete	1	Continuous thread	ABM	Clear	--	--	Oval	2-pc. cup	1938	Owens-Illinois Glass Co.
3	T-214, St. Iia, SIHP #-7193	Jar	Complete	1	Continuous thread	ABM	Clear	--	--	Oval	2-pc. cup	1951	Owens-Illinois Glass Co.

Table 165. Kālia, T-222, Glass Bottles

Acc. #	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
222-A-1	T-222, St. Ic	Bottle, milk	Complete	1	Capseat	--	Clear	25.0	10.0	Round	2 pc. cup	1933 / 1943	ACL "Honolulu Dairymen's Co." Owens-Illinois date code base mark

4.14.3 Miscellaneous Historic Artifacts

Miscellaneous historic artifacts consisting primarily of building materials with some personal items were collected from six of the Kālia test excavations. Milled wood plank fragments were collected from both T-198 (Table 166) and T-200 (Table 167).

Fragments collected from T-202 consisted of building materials that included stone material, 13 metal items/fragments, seven of which are machine parts, a possible leather insulation item, and 19 milled wood fragments (Table 168). These artifacts are related to a remnant privy structure, SIHP #-7430 Feature 1 (Table 168). One machine-headed cut nail (Acc. # 202-A-24) was pried from a section of privy wood. These types of nails generally date from 1835 to 1890, although some are still made today (Middle Tennessee State University 2002).

An unworked basalt cobble, lumber fragments, metal slag, and two household/personal items consisting of a possible copper spoon and a bone toothbrush were collected from T-202A, Stratum Ie (Table 169). In addition, a standard sized brick dating from 1886 to 1918 (Meide 1994:25) was collected from Stratum IIa. In the Market Street Chinatown Archaeological Project, San Jose, Calif. (Stanford Archaeological Center 2003), Euro-American toothbrushes had holes in the head that did not go all the way through. In contrast, Asian toothbrushes had holes that did go all the way through the bone head so that bristles could be removed and replaced. The toothbrush in T-202A had non-through holes, suggesting that it was of American/English manufacture. A single leather shoe sole lacking nail holes, indicating it was made post-1926 (IMACS 1992), was collected from T-203 (Table 170). Three tiles were collected from T-214, Stratum IIa, SIHP #-7193 (Table 171).

Table 166. Kālia, T-198, Miscellaneous Historic Artifacts

Acc. # 198-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-198, St. II, SIHP #-6636	Milled plank	Wood	Fragment	1	21.1+ (L) x 7.5 (W) x 2.3 (T) cm.	

Table 167. Kālia, T-200, Miscellaneous Historic Artifacts

Acc. # 200-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
2	T-200, St. Iib, SIHP #-6636	Milled plank	Wood	Fragment	3	30.0+ (L) x 4.7 (W) x 2.3 (T) cm.	Burnt wood

Table 168. Kālia, T-202, Miscellaneous Historic Artifacts

Acc. # 202-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
14	T-202, SIHP #- 7430, Fea. 1	Milled block	Wood	Fragment	9	7.5 (l) x 2.1 (W) x 1.3 (T) cm.	
15	T-202, SIHP #- 7430, Fea. 1	Insulation item?	Leather	Fragment	1	--	
16	T-202, SIHP #- 7430, Fea. 1	Building material	Stone	Fragment	1	7.0 (L) cm.	Mortar on surface
17	T-202, SIHP #- 7430, Fea. 1	Machine part - ring	Metal	Fragment	1	4.2 (D) cm.	Recessed interior
18	T-202, SIHP #- 7430, Fea. 1	Housing box?	Metal	Fragment	1	4.5 (L) x 2.0 (W) cm.	Thin plates bent into an open box-shape
19	T-202, SIHP #- 7430, Fea. 1	Machine part - rod and wheel	Metal	Fragment	1	5.5 (D) cm.	Wood at base
20	T-202, SIHP #- 7430, Fea. 1	Machine part - ring	Metal	Fragment	3	2.9 (D) cm.	Thin metal
21	T-202, SIHP #- 7430, Fea. 1	Housing metal?	Metal	Fragment	4	--	Thin curved plates
22	T-202, SIHP #- 7430, Fea. 1	Machine part - wire	Metal	Fragment	1	--	White with knobs on each end
23	T-202, SIHP #- 7430, Fea. 1	Machine part - attachment	Metal	Fragment	1	55 (L) cm.	

Acc. # 202-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
24	T-202, SIHP #-7430, Fea. 1	Nail	Metal	Complete	1	--	Machine-headed cut nail (1835-1890)
25	T-202, SIHP #-7430, Fea. 1	Milled planks	Wood	Fragment	10	--	

Table 169. Kālia, T-202A, Miscellaneous Historic Artifacts

Acc. # 202A-A	Prov.	Type	Material	Portion	No.	Measurements	Description
3	T-202A, St. Ie	Cobble	Basalt	Complete	1	8.0 (L) x 5.0 (W) x 4.0 (T) cm.	No evidence of being worked or being fire affected
4	T-202A, St. Ie	Lumber	Wood	Fragment	5	--	Five pieces of lumber
5	T-202A, St. Ie	Metal slag	Metal	Fragment	1	3.0 (L) x 2.0 (W) x 0.5-1.0 (T) cm.	
6	T-202A, St. Ie	Spoon	Metal	Complete	1	14.4 (L) x 3.3 (W) x 0.2 (T) cm.	Rusty; green due to oxidation; possible copper?
7	T-202A, St. Ie	Toothbrush	Worked bone	Complete	1	13.5 (L) x 1.0 (W) x 0.3 (T) cm.	Slight tapered head; 19 x 4 and two rows of bristles; holes do not go all the way through brush head
8	T-202A, St. Ila, SIHP #-6636	Brick	Fired clay	Fragment	1	5+ x 4 x 2 1/4 in.	Black; cinder; machine-made; age: 1886-1918 (Meide 1994:25)

Table 170. Kālia, T-203, Miscellaneous Historic Artifacts

Acc. # 203-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-203, St. If	Shoe, human	Leather	Heel/sole	1	29.5 (L) x 9.5 (W) x 0.3 (T) cm.	No holes for nails; glued; post-1926 (IMACS 1992)

Table 171. Kālia, T-214, Miscellaneous Historic Artifacts

Acc. # 214-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
4	T-214, St. IIa, SIHP #-7193	Tile	Earthenware	Fragments	12	4.7-(L) x 4.7-(W) x 1.3 (T) cm.	12 tiles in one section (nine blue, two yellow, one green)
5	T-214, St. IIa, SIHP #-7193	Tile	Earthenware	Fragment	1	10-x-10-x-1 cm.	Floral pattern
6	T-214, St. IIa, SIHP #-7193	Tile	Earthenware	Fragment	1	10-x-10-x-1 cm.	Geometric pattern

4.14.4 Summary of Artifact Assemblage from Kālia

Artifacts from T-200 and T-202 have mold-blown bottles manufactured from the late nineteenth- to early twentieth-century. T-202A has a brick dating from 1886–1918. The materials in these three test excavations date from the end of the nineteenth century to the first two decades of the twentieth century. In contrast, a machine-blown bottle from T-222 is dated to 1933 or 1943. Construction material was found in several of the test excavations including two bricks that could be dated based on their size—one dated to 1825–1900 and the other to 1886–1918. Personal items included a bone toothbrush handle and a shoe made after 1926.

4.15 Artifact Analysis for Kaka‘ako Makai (Test Excavations 226A through 232A)

Historic artifacts were collected from 10 of the 16 test excavations within Kaka‘ako Makai (T-226A, T-226B, T-226C, T-226D, T-227, T-227A, T-227B, T-231A, T-232, and T-232A). A total of 227 historic artifact fragments were collected, including 78 ceramic vessel fragments, 69 glass bottle/bottle fragments, and 80 miscellaneous items. Historic artifacts were collected from two cultural resources: a buried A-horizon, designated SIHP #50-80-14-2918 (T-226B Stratum II, T-227 Stratum II, and T-227A Stratum II and SIHP #-2918 Features 14 and 17), and a burnt trash layer, designated SIHP #50-80-14-7189 (T-231A Stratum Ig, T-232 Stratum If, and T-232A Stratum Ie).

4.15.1 Ceramics

T-226B

Seven fragments from three ceramic vessels were collected from T-226B, Stratum II (Table 172). They consist of part of a German mineral water/ale stoneware bottle (pre-1920), and two Euro-American whiteware vessels, one with a blue-edged rim decoration.

T-226D

Nine fragments of seven vessels were collected from T-226D, Strata Ib and III (Table 173). They consist of a British Bristol glaze stoneware bottle, two Euro-American whiteware vessels, a Euro-American yellowware nappy, a Chinese porcelain dish with a “Four Flowers” motif, a Chinese porcelain bowl with a “Bamboo” motif, and a Chinese porcelain plate with a “Sweet Pea” motif.

T-227

Forty-one (41) ceramic fragments from a minimum of nine Euro-American vessels were collected from T-227, Stratum II, SIHP #-2918 (Table 174). Twenty-four fragments are from one large whiteware pitcher, eight fragments are from two German stoneware bottles, one fragment is from a yellowware nappy, five fragments are from at least two undecorated whiteware vessels, and three fragments are from decorated whiteware vessels. The German mineral water/ale stoneware bottles were probably imported into Hawai‘i before 1920.

T-227A

Four ceramic fragments from three vessels were collected from T-227A, Stratum Id (Table 175). The small fragments are from undecorated or transfer printed Euro-American whitewares.

T-227B

Two ceramic fragments from two vessels were collected from T-227B, Stratum Ie (Table 176). They consist of a Euro-American whiteware bowl fragment with annular bands and a Euro-American whiteware plate fragment with a blue cut sponge stencil design.

T-231A

Ten ceramic fragments from six vessels were collected from T-231A, Stratum Ig, SIHP #-7189 (Table 177). One ironstone plate made in England was dated to 1873–1907. The remaining vessels consisted of a Euro-American whiteware ewer, a Euro-American whiteware bowl, a Chinese rice bowl with a “Bamboo” motif, a Chinese stoneware crock, and a Chinese stoneware jar.

T-232

Two ceramic fragments from two vessels were collected from T-232, Stratum If, SIHP #-7189 (Table 178). One is a Chinese porcelain tableware with a “Four Flowers” motif and one is a porcelain tea cup with a celadon glaze, made in either China or Japan (Asian).

T-232A

Three ceramic fragments from three vessels were collected from T-232A, Stratum Ie, SIHP #-7189 (Table 179). These are an English-made stoneware master ink bottle, a redware teapot, and an ironstone flatware. The ink bottle was made by Doulton, an English pottery, which used the “Doulton” mark from 1891 to 1956 (Godden 1989:214). The Ironstone vessel had a base mark for the English pottery Elsmore & Forster, which they used from 1853 to 1871 (Stoke-on-Trent 2013).

Table 172. Kaka'ako Makai, T-226B, Ceramic Vessels

Acc. # 226B- A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-226B, St. II, SIHP #-2918	Flatware - plate	Rim	2	Refined earthenware	Whiteware	--	Blue edge- decorated	Euro- American	Cobalt blue
2	T-226B, St. II, SIHP #-2918	Tableware - unidentified	Body (2); rim (1)	3	Refined earthenware	Whiteware	--	--	Euro- American	
3	T-226B, St. II, SIHP #-2918	Bottle, mineral water/ale	Body	2	Stoneware	--	Brown salt glaze	--	German (pre-1920)	

Table 173. Kaka'ako Makai, T-226D, Ceramic Vessels

Acc. # 226D- A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-226D, St. Ib	Hollowware - bowl	Body	1	Porcelain	--	Bamboo motif, painted underglaze	--	Chinese	
2	T-226D, St. Ib	Flatware - possible plate	Body	2	Porcelain	--	Sweet Pea motif, painted underglaze	--	Chinese	
3	T-226D, St. Ib	Tableware - large dish/bowl	Base	2	Porcelain	--	Four Flowers motif, painted overglaze	--	Chinese	
4	T-226D, St. Ib	Tableware - unidentified	Body	1	Refined earthenware	Whiteware	Cut sponge stencil, polychrome floral	--	Euro- American	Green, red, and yellow flowers

Acc. # 226D- A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
5	T-226D, St. Ib	Unknown	Body	1	Refined earthenware	Whiteware	--	--	Euro-American	
6	T-226D, St. Ib	Bottle - ale	Base	1	Stoneware	--	Bristol Glaze	--	British; 1835-1900	
7	T-226D, St. III	Hollowware - nappy	Body to rim	1	Refined earthenware	Yellowware	--	--	Euro-American	

Table 174. Kaka'ako Makai, T-227, Ceramic Vessels

Acc. # 227-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-227, St. II, SIHP #-2918	Hollowware - possible pitcher	Various	24	Refined earthenware	Whiteware	--	--	Euro-American	Body/base (7); base (2); body (10); rim (4); handle (1)
2	T-227, St. II, SIHP #-2918	Bottle, mineral water/ale	Body	7	Stoneware	--	Salt glaze	--	German; pre-1920	Dark brown glaze color
3	T-227, St. II, SIHP #-2918	Bottle, mineral water/ale	Body	1	Stoneware	--	Salt glaze	--	German; pre-1920	Brown-orange glaze color
4	T-227, St. II, SIHP #-2918	Hollowware - large bowl	Body	1	Refined earthenware	Whiteware	Purple floral garland near rim, painted underglaze	--	Euro-American	

Acc. # 227-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
5	T-227, St. II, SIHP #-2918	Hollowware - nappy	Body	1	Refined earthenware	Yellowware	--	--	Euro- American	
6	T-227, St. II, SIHP #-2918	Tableware - unidentified	Body	1	Refined earthenware	Whiteware	Blue and pink floral, painted underglaze	--	Euro- American	
7	T-227, St. II, SIHP #-2918	Hollowware - possible bowl	Body	1	Refined earthenware	Whiteware	Green flower, painted underglaze	--	Euro- American	
8	T-227, St. II, SIHP #-2918	Flatware - plate	Base	1	Refined earthenware	Whiteware	--	--	Euro- American	
9	T-227, St. II, SIHP #-2918	Hollowware - large bowl	Body (3); rim (1)	4	Refined earthenware	Whiteware	--	--	Euro- American	Possibly from two vessels

Table 175. Kaka'ako Makai, T-227A, Ceramic Vessels

Acc. # 227A- A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-227A, St. Id	Flatware - large platter	Base	2	Refined earthenware	Whiteware	--	--	Euro- American	
2	T-227A, St. Id	Tableware - unidentified	Body	1	Refined earthenware	Whiteware	Pale blue scenic transfer print, underglaze	--	Euro- American	Impressed maker's mark on base—illegible
3	T-227A, St. Id	Tableware - serving vessel	Body to rim	1	Refined earthenware	Whiteware	Blue floral transfer print, underglaze	--	Euro- American	

Table 176. Kaka'ako Makai, T-227B, Ceramic Vessels

Acc. # 227B- A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-227B, St. Ie	Hollowware - bowl	Rim to body	1	Refined earthenware	Whiteware	Slip glaze - annular bands	Two red bands	Euro- American	Wide blue band and narrow red bands above and below
2	T-227B, St. Ie	Flatware - plate	Rim and body	1	Refined earthenware	Whiteware	Blue floral design	Blue band	Euro- American	Cut sponge stencil

Table 177. Kaka'ako Makai, T-231A, Ceramic Vessels

Acc. # 231A- A	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-231A, St. Ig, SIHP #-7189	Flatware - saucer with cup ring	Base to rim	1	Refined earthenware	Ironstone	--	--	English; 1873- 1907	Base mark: "[Royal Seal]/[IR]ONSTONE GEORGE JONES & SONS /ENGLAND"
2	T-231A, St. Ig, SIHP #-7189	Hollowware - rice bowl	Body to rim	1	Porcelain	--	Bamboo motif, painted underglaze	--	Chinese	
3	T-231A, St. Ig, SIHP #-7189	Hollowware - possible large ewer	Body	1	Refined earthenware	Whiteware	--	--	Euro- American	Fragment with broken handle end
4	T-231A, St. Ig, SIHP #-7189	Hollowware - possible large bowl	Body	1	Refined earthenware	Whiteware	Blue, painted underglaze	--	Euro- American	Possible fragment of Lokelani pattern
5	T-231A, St. Ig, SIHP #-7189	Hollowware - crock	Rim	1	Stoneware	--	Brown slip glaze	--	Chinese	
6	T-231A, St. Ig, SIHP #-7189	Hollowware - jar	Body	5	Stoneware	--	Brown slip glaze	--	Chinese	

Table 178. Kaka'ako Makai, T-232, Ceramic Vessels

Acc. #	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-232, St. If, SIHP #-7189	Tableware - unidentified	Body	1	Porcelain	--	Four Flowers motif, painted overglaze	--	Chinese	
2	T-232, St. If, SIHP #-7189	Hollowware - small tea cup	Base to rim	1	Porcelain	--	Celadon glaze	--	Asian	Blue Asian character on base

Table 179. Kaka'ako Makai, T-232A, Ceramic Vessels

Acc. #	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-232A, St. Ie, SIHP #-7189	Bottle, master ink	Base to shoulder	1	Stoneware	--	Brown slip glaze	--	English, 1891-1956	Impressed mark on heel, "DOULTON/LAMBETH; 18.0 cm (H) x 7.5 cm (D)
2	T-232A, St. Ie, SIHP #-7189	Hollowware - tea pot	Base to rim	1	Earthenware, coarse	Redware	Multi-color slip glaze	--	Euro-American	"t" etched on base
3	T-232A, St. Ie, SIHP #-7189	Flatware - unidentified	Body	1	Refined earthenware	Ironstone	--	--	English; ca. 1853-1871	Blue stars on base; Trademark: "Warran[ted]/Ironstone [China]; Elsmore & Forster

4.15.2 Bottles

T-226A

One aqua bottle fragment was collected from T-226A, Stratum Ic (Table 180). It has a slightly rounded bottom similar to soda bottles shown in Elliott and Goulds' (1978:112-113) book on early Hawaiian soda bottles dating to the 1880s to 1910s.

T-226B

Two bottle fragments, one aqua and one clear, were collected from T-226B, Stratum II, SIHP #-2918 (Table 181).

T-226C

Two bottle fragments from two bottles, one aqua and one dark olive were collected from T-226C, Stratum Id backdirt pile (Table 182). The aqua bottle was from the Consolidated Soda Water Works Co., Ltd., of Honolulu. The embossing style on the body indicates that it was bottled in ca. 1900-1909 (Elliott and Gould 1978:80).

T-226D

Two glass bottle fragments were collected from T-226D, Stratum Ib (Table 183). A dark olive bottle neck fragment has an applied lip finish, indicating it was manufactured between 1820 and 1890.

T-227

Fifteen glass fragments from a minimum of six bottles were collected from T-227, Stratum Ic (1 bottle), Stratum II (3 bottles), SIHP #-2918 Feature 14 (1 bottle), and SIHP #-2918 Feature 16 (1 bottle) (Table 184); Stratum II is designated as a component of SIHP #-2918. The olive bottle fragment in Stratum Ic lacks any seams, indicating it probably is from a bottle made in a turn mold (pre-1920). A clear glass body fragment in Stratum II can be dated to the post-1870s based on color. Three clear bottle fragments from Stratum II are from a milk bottle embossed with the name "Yamashita." A similar milk bottle was found in the East Kapālama test excavation T-061. As previously noted, K. Yamashita is recorded as a dairy farmer as early as 1911 (Hawaii Board of Health 1911:149; also mentioned in Hawaii Board of Health 1928:56), and later had a dairy in Kapahulu called the New Fair Dairy, which is listed in a 1940 Hawaiian directory (Polk-Husted 1940:471). Five bottle fragments from a mold-blown olive bottle, made in a two-piece mold, date to the post-1870s to 1920s period. No dating information could be determined for the olive bottle fragment from SIHP #-2918 Feature 14 or the light brown bottle fragment from SIHP #-2918 Feature 16.

T-227A

Thirteen glass fragments from a minimum of seven bottles were collected from T-227A, Stratum Id (Table 185). They consist of a round black glass base and a lip/neck (possibly from the same bottle), a clear bottle fragment (dated post-1870s based on color), a light green bottle fragment, a dark olive bottle with a round base (5 fragments), a dark olive bottle with a square base, and three dark olive body fragments that could be part of the round or square base bottle. Based on color, the clear bottle fragments can be dated to the post-1870s, and the black bottle fragments can be dated to the pre-1890s. In addition, the black lip fragment has an applied finish,

used from 1820 to 1890. The light green and dark olive fragments cannot be dated. The round base dark olive bottle has embossed letters, but only a few letters remain and it is difficult to determine the full name. If it is an American-made bottle, it probably post-dates the 1860s, as embossing was not common on the body of the bottles until this time. The black bottle with a square base is a case gin bottle with an open pontil. As mentioned previously, American bottles with a pontil usually pre-date 1850. However, in other countries bottles, especially case gin bottles from countries such as the Netherlands, continued to be free-blown into the early decades of the twentieth century.

Nine fragments of six individual glass bottles were collected from T-227A from Stratum II, SIHP #-2918 (Table 185). Five fragments were “black glass,” which was usually produced in America before the 1890s (SHA/BLM 2013). Two base fragments also have a rough surface, possibly a glass pontil, indicating that the bottles were entirely mouth-blown (not blown in a mold). In America, mold-blown bottles generally replaced mouth-blown bottles by the 1850s; however, other countries continued to make mouth-blown bottles until the late nineteenth century (SHA/BLM 2013). Since the origin of the black bottles is unknown, we can only date them to the pre 1890s. One dark olive bottle has some embossing on the body, which was not common on the body portion of American-made bottles until the 1860s (SHA/BLM 2013). Thus, this collection probably dates from the 1860s to the 1890s. Both Stratum Id and Stratum II have possible pontiled bottles.

T-227B

Five complete bottles were collected from T-227B, Stratum Ie (Table 186). The bottles are an American-made amber beer bottle, made by the Streator Bottle & Glass Co., Streator, Ill. between 1881–1905 (Toulouse 1971:461). An American made Hutchinson-stopper aqua soda bottle was used by the Arctic Soda Water Works of Honolulu, HI. This bottle is illustrated in Elliott and Gould (1988:76) and is dated to the late 1890s. An olive spirits bottle made in a turn mold has a beveled lip with a tooled Champagne lip finish, which was common in ca. 1900-1920 (BLM/SHA 2013_Finished and Closures). A small, clear medicine bottle is embossed “JOHN WYETH & BRO. / PHILADELPHIA,” a drug company founded in 1860 and still in business today. This embossed bottle probably pre-dates ca. 1899, when the company changed its name to John Wyeth & Bro., Inc. (Lowe 1908:69). An aqua medicine bottle with a tooled lip (1880s–1920s) was for C.I. Hood & Co., Lowell, Mass Sarsaparilla Compound/Extract, which was popular from ca. 1870s to 1950s. The BLM/SHA (2013_Medicinal) Historic Bottle Identification site indicates that the style of vertical embossing for this bottle dates from the 1880s to 1890s.

T-231A

Nine glass fragments from nine individual bottles were collected from T-231A, Stratum Ig, SIHP #-7189 (Table 187). The bottles are comprised of: one black, four dark olive, and one olive spirits bottles; one clear Codd soda bottle; one light green medicine (pill/aspirin) bottle, and one clear medicine bottle. The Hollister & Co. soda bottle is a Niagara type bottle, with a Codd marble stopper-type closure. This bottle dates to ca. 1893 (Elliott and Gould 1978:113). The top of the bottle is broken off, as children broke the bottle in order to get to the marble inside. The two medicine bottles can be dated to the post-1870s to 1920s period based on the two-piece mold and lip finish. The spirits bottles can be dated based on a combination of their color, mold

type, and lip finish. The six spirits bottles are dated to 1860–1920 (4), 1860–1890 (1), and 1880–1920 (1).

T-232

Three glass fragments from three bottles were collected from T-232, Stratum If, SIHP #-7189, a trash layer (Table 188). The bottles consist of an aqua medicine vial, a brown beer bottle, and a neck-lip of an olive spirits bottle. The beer bottle can be dated to the post-1870s period based on the two-piece cup mold, and the olive spirits bottle can be dated to the 1880s–1920s period based on the tooled lip finish.

T-232A

Seven glass fragments from seven bottles were collected from T-232A, Stratum Id (Table 189). There is a brown bourbon bottle fragment (1860s post based on embossing), a black spirits bottle (1820–1890, based on applied lip finish), a clear medicine vial (post 1860s based on clear color), a clear medicine bottle (post-1860s), a possible clear bulk ink bottle (post-1860s), and two green spirits bottles. The embossing on the brown bourbon bottle fragment spells out “Bourbon” and possibly “Louisville, Ky.” There were once numerous bourbon distilleries in Kentucky. The partial letters on the bottle fragment could not be identified to a specific brand name. The green spirits bottles are from W. E. Johnson Co., Liverpool, England, a bottler established in 1874, mainly for beer (including Guinness Beer), but also for other spirits brands and mineral waters (Hughes 2006:132). The bottles were made by Nuttal & Co., which used an N & Co. base mark until 1913 (Whitten 2013).

Table 180. Kaka'ako Makai, T-226A, Glass Bottles

Acc. # 226A- A	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-226A, St. Ic	Bottle, soda	Body	1	--	--	Aqua	--	--	--	--		Round bottom

Table 181. Kaka'ako Makai, T-226B, Glass Bottles

Acc. # 226B- A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
4	T-226B, St. II, SIHP #-2918	Bottle	Body	1	--	--	Aqua	--	--	--	--		Small fragment
5	T-226B, St. II, SIHP #-2918	Bottle	Body	1	--	--	Clear	--	--	--	--		Small fragment

Table 182. Kaka'ako Makai, T-226C, Glass Bottles

Acc. # 226C- A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-226C, St. Id, Backdirt pile	Bottle, soda	Base- neck	1	--	--	Aqua	19.5+	5.7	--	2 pc. cup	1900- 1909	Embossed on body horizontally: "CONSOLIDATED/SODA/ WATER WORKS CO./ LIMITED/HONOLULU/ HI"; on base: "C. S.W. W. CO."
2	T-226C, St. Id, Backdirt pile	Bottle	Body	1	--	--	Olive, dark	--	--	--	--		

Table 183. Kaka'ako Makai, T-226D, Glass Bottles

Acc. # 226D-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
8	T-226D, St. Ib	Bottle	Neck-lip	1	Brandy	Applied	Olive, dark	--	--	--	--	1820-1890	
9	T-226D, St. Ib	Bottle	Base	1	--	--	Aqua	--	--	Round	--	-	

Table 184. Kaka'ako Makai, T-227, Glass Bottles

Acc. # 227-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
10	T-227, St. Ic	Bottle	Base	1	--	--	Olive	--	--	Round	No seams	pre-1920	Base: push up
11	T-227, St. II, SIHP #-2918	Bottle, milk	Body	3	--	--	Clear	--	--	--	--	1870s-post	""HA"/ "PROPERT[Y]"/ "K. YAMASH"/ "PHO" embossed horizontally on body on one fragment
12	T-227, St. II, SIHP #-2918	Bottle	Body	1	--	--	Olive	--	--	Square / rectangular	--		Three embossed letters on fragment, two are cut off and one is a "T" (NET?)
13	T-227, St. II, SIHP #-2918	Bottle, spirits	Body (4); base (1)	5	--	--	Olive	--	7.5	Round	2 pc. cup	1870s-1920s	"N" embossed on base; base: push up
14	T-227, SIHP #-2918, Feature 14	Bottle	Body	1	--	--	Olive	--	--	--	--		
15	T-227, SIHP #-2918, Feature 16	Bottle	Body	4	--	--	Brown, light	--	--	--	--		

Table 185. Kaka'ako Makai, T-227A, Glass Bottles

Acc. # 227A- A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
4	T-227A, St. Id	Bottle, beverage	Base	1	--	--	Black	--	7.8	Round	--	pre- 1890s	Base: push up
5	T-227A, St. Id	Bottle, gin	Base	1	--	--	Olive, dark	6.0+	7.5	Square	--	1920s- pre	Open pontil case gin
6	T-227A, St. Id	Bottle, beverage	Neck-lip	1	Double ring	Applied	Black	--	--	--	No seams	pre- 1920	
7	T-227A, St. Id	Bottle	Body	1	--	--	Clear	--	--	--	--	1870s- post	
8	T-227A, St. Id	Bottle	Body	1	--	--	Green, light	--	--	--	--		
9	T-227A, St. Id	Bottle, beverage	Body	3	--	--	Olive, dark	--	--	--	--		
10	T-227A, St. Id	Bottle, beverage	Base	5	--	--	Olive, dark	--	7.0	Round	--	ca. 1860s- post	One piece has letters "AIT"; second piece has unidentifiable letters/design: "...ALTT...KL ..."
11	T-227A, St. II, SIHP #-2918	Bottle, spirits	Base	2	--	--	Black	--	--	Round	--	pre- 1890s	
12	T-227A, St. II, SIHP #-2918	Bottle, spirits	Base	2	--	--	Black	--	8.0	Round	--	pre- 1890s	
13	T-227A, St. II, SIHP #-2918	Bottle, spirits	Base	1	--	--	Black	--	7.5	Round	--	pre- 1890s	
14	T-227A, St. II, SIHP #-2918	Bottle	Body	1	--	--	Olive, dark	--	--	Round	--	1860s- post	Embossed with "...LE" vertically on the body

Acc. #	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
227A-A-15	T-227A, St. II, SIHP #-2918	Bottle	Body	1	--	--	Olive, dark	--	--	Square/rectangular	--		
227A-A-16	T-227A, St. II, SIHP #-2918	Bottle	Body	2			Amber	--	--	--	--	--	

Table 186. Kaka'ako Makai, T-227B, Glass Bottles

Acc. #	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
227B-A-3	T-227B, St. Ie	Bottle, spirits	Complete	1	Brandy	Tooled	Amber	23.8	6.1	Round	2 pc. post-mold	1881-1905	Embossed on base: "S B & G Co./0" for Streator Bottle and Glass Co., Streator, Ill.
227B-A-4	T-227B, St. Ie	Bottle, soda	Complete	1	Blob	Tooled	Aqua	20.2	5.5	Round	2 pc. cup-mold	Late 1890s	Embossed vertically on body: "ARCTIC SODA WATER WORKS/M. R. DE SA' PROP.. / HONOLULU H.I."; Hutchinson-style closure
227B-A-5	T-227B, St. Ie	Bottle, spirits	Complete	1	Champagne	Tooled	Olive	29.0	5.5	Round	Turn mold	1900-1920	Date based on beveled champagne lip
227B-A-6	T-227B, St. Ie	Bottle, medicine	Complete	1	Patent	--	Clear	7.7	4.1	Round	No seams	1860-1899 ca.	Embossed vertically on body: "JOHN WYETH & BRO./PHILADELPHIA"
227B-A-7	T-227B, St. Ie	Bottle, medicine	Complete	1	Double ring	Tooled	Aqua	23.8	7.2 x 4.0	Rectangular	2-pc. post mold	1880s-1890s	Embossed vertically on sides: "C. I. HOOD & Co/LOWELL MASS./APOTHEC ARIES"; horizontally on body "HOOD'S/SARSA/PARILLA"; on base: "40"

Table 187. Kaka'ako Makai, T-231A, Glass Bottles

Acc. # 231A- A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
7	T-231A, St. Ig, SIHP #-7189	Bottle, spirits	Complete	1	Brandy	Applied	Olive	24.2	5.1	Round	Turn	1860- 1890	
8	T-231A, St. Ig, SIHP #-7189	Bottle, spirits	Complete	1	Brandy	Applied	Olive, dark	25.0	5.7	Round	Turn	1860- 1890	
9	T-231A, St. Ig, SIHP #-7189	Bottle, spirits	Complete	1	Brandy	Applied	Olive, dark	24.1	6.0	Round	Turn	1860- 1890	
10	T-231A, St. Ig, SIHP #-7189	Bottle, spirits	Complete	1	Brandy	Applied	Olive, dark	24.2	6.4	Round	Turn	1860- 1890	
11	T-231A, St. Ig, SIHP #-7189	Bottle, medicine	Complete	1	Patent	Tooled	Green, light	13.5	4.9 x 2.4	Rectangular	2 pc. cup	1870s- post	
12	T-231A, St. Ig, SIHP #-7189	Bottle, spirits	Complete	1	Brandy	Tooled	Black	23.4	6.1	Round	Turn	1860- 1890s	
13	T-231A, St. Ig, SIHP #-7189	Bottle, spirits	Complete	1	Blob	Tooled	Olive, dark	24.2	6.3	Round	Turn	1880s- 1920s	

Acc. # 231A-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
14	T-231A, St. Ig, SIHP #-7189	Bottle, soda	Base-neck	1	--	--	Green, light	21.0	6.0	Round	2 pc. cup	1893 ca.	Niagara Codd bottle; top broken to get marble; embossed on body in double arch: "HOLLISTER/ & CO/ HONOLULU/ HI: embossed on heel "...MAKERS/ LONDON" (Elliott & Gould 1978:113)
15	T-231A, St. Ig, SIHP #-7189	Bottle, medicine	Complete	1	Rolled	--	Clear	10.9	4.0	Round	2 pc. cup	1870s-1920s	Possible pill/aspirin bottle

Table 188. Kaka'ako Makai, T-232, Glass Bottles

Acc. # 232-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
3	T-232, St. If, SIHP #-7189	Bottle, beer	Base-shoulder	1	--	--	Brown	--	6.0	Round	2 pc. cup	1870s-post	Suction mark on base
4	T-232, St. If, SIHP #-7189	Bottle, spirits	Neck-lip	1	Double ring	Tooled	Olive	--	--	--	--	1880s-1920s	
5	T-232, St. If, SIHP #-7189	Vial, medicine	Base-neck	1	--	--	Aqua	5.3+	2.5 x 1.0	Rectangular	Turn	1860-1920s	Dimple

Table 189. Kaka'ako Makai, T-232A, Glass Bottles

Acc. # 232A- A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
4	T-232A, St. Id	Bottle, medicine	Complete	1	Patent	Tooled	Clear	13.0	4.0	Square	2 pc. cup	1870s- post	"T" embossed on base
5	T-232A, St. Id	Bottle, ink?	Complete	1	Patent	Tooled	Clear	18. .5	7.5	Round	2 pc. cup	1870s- post	
6-7	T-232A, St. Id	Bottle, beverage	Complete	2	Cham- pagne	--	Green	25.3	7.0	Round	2 pc. cup	1874- 1913	"Johnson Liverpool, Trademark Registered"- picture of a sun or star - embossed horizontally on body; "N & Co" embossed on base; base: kick up; Nuttal & Co. mark pre-1913 (Whitten 2013)
8-9	T-232A, St. Id	Bottle, spirits	Complete	2	Brandy	Applied	Black	20.0	6.5	Round	Turn	1820- 1890	Dimple
10	T-232A, St. Id	Bottle	Stopper	1	--	--	Clear	5.0	2.5 x 1.0	Diamond	2 pc. cup	1870s- post	
11	T-232A, St. Id	Bottle, bourbon	Body	1	--	--	Brown	--	--	--	--	1860s- post	One piece reads "... ERS....URBON....IL LE...KY"

4.15.3 Miscellaneous Historic Artifacts

Miscellaneous historic artifacts consisting primarily of building materials and personal items were collected from nine of the Kaka'ako Makai test excavations.

A post-1849 Prosser button (IMACS 1992) and two brick fragments mortared together were collected from T-226A (Table 190). One small red brick fragment was collected from T-226B, Stratum II, SIHP #-2918 (Table 191). Three small red brick fragments were collected from T-226C, Stratum Id backdirt pile (Table 192). One complete standard-sized brick dating from 1978 to the 1994, and three brick fragments, two of which have standard sizes that match the complete brick and one that appears to date from 1807 to 1860 (Meide 1994:25), were collected from T-226D, SIHP #-2918 Feature 28. A rail beam and a spike also were collected from SIHP #-5820 Feature 28. Two tile fragments were collected from T-226D, Stratum Ib and one brick fragment was collected from T-226D, Stratum Ic (Table 193).

One of the three bricks collected from T-227 may have a mold mark. Other building material from T-227, Stratum II, SIHP #-2918 (Table 194) included an asphalt brick fragment, a piece of ceramic, possible stone roofing tile, a rail spike that dates from the late nineteenth century to the mid-twentieth century, a possible corroded spike, metal piping, and a corroded nail. Personal items that were collected included an ivory bead, a glass button with no holes and a wire shank, a celluloid comb or hair ornament, glass marble fragments, and a glass candle stick holder. A red brick fragment and a metal horseshoe were collected from T-227B, Stratum Ie (Table 195).

A piece of chert was collected from T-231A, Stratum Ic, as well as a non-standard size machine-made brick, window glass, compressed charcoal for drawing, a soapstone box lid, and a ceramic possible lamp base from Stratum Ig, SIHP #-7189 (Table 196). Chert was utilized in the early post-Contact period as ship ballast as well as for strike-a-lights (Goodwin and Allen 2005:67). A glass insulator fragment was also collected from T-231A. The insulator was threaded and embossed with "PAT DEC.19.1871", indicating a manufacturing date between 1871-1970s (Glassian.org).

A clay marble and a cut strip of abalone shell were collected from T-232, Stratum If, SIHP #-7189 (Table 197). Several fragments including a shell button fragment, leather strap, a glass lamp, and a pavement block, and a complete lid were collected from T-232A, Stratum Ie, SIHP #-7189 (Table 198). The toothpaste jar lid is similar to the Gosnell & Co. London "Cherry Toothpaste" lid collected from T-134 in the West Kaka'ako zone, although it is a dark green monochrome version that was used from ca. 1880-1900 (Stoke-on-Trent 2013).

Table 190. Kaka'ako Makai, T-226A, Miscellaneous Historic Artifacts

Acc. #226A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
2	T-226A, St. Ib	Brick	Fired clay	Fragments	2	--	Two brick fragments adhered by mortar; yellow/orange color; sand; possibly hand-made
3	T-226A, St. Ic	Button, prosser	Ceramic	Complete	1	1.9 (D) x 2.0 (T) cm.	Four holes; age: post-1849 (IMACS 1992)

Table 191. Kaka'ako Makai, T-226B, Miscellaneous Historic Artifacts

Acc. #226B-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
6	T-226B, St. II, SIHP #-2918	Brick	Fired clay	Fragment	1	--	Red; no sides to measure

Table 192. Kaka'ako Makai, T-226C, Miscellaneous Historic Artifacts

Acc. #226C-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
3	T-226C, St. Id, Backdirt	Brick	Fired clay	Fragment	3	--	Red; no sides to measure

Table 193. Kaka'ako Makai, T-226D, Miscellaneous Historic Artifacts

Acc. #226D-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
10-11	T-226D, St. Ib	Tile	Earthenware	Fragment	2	--	Small brown/white fragments
12	T-226D, SIHP #-2918, Feature 28	Brick	Fired clay	Complete	1	9 x 4 1/2 x 2 1/2 in.	Yellow color; machine-made; fire brick; rectangular; age: 1978 to the present (Meide 1994)
13	T-226D, SIHP #-2918, Feature 28	Brick	Fired clay	Partial	1	6 1/2+ x 4 1/2 x 2 1/2 in.	Yellow color; machine-made; fire brick

Acc. #226D-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
14	T-226D, SIHP #-2918, Feature 28	Brick	Fired clay	Fragment	1	5+ x 4 1/4 x 2 1/2 in.	Yellow brown color; machine-made; fire brick
15	T-226D, SIHP #-2918, Feature 28	Brick	Fired clay	Fragment	1	6+ x 4 1/2 x 2 1/2 in.	Yellow brown color; machine-made; fire brick
16	T-226D, SIHP #-2918, Feature 28	Rail beam	Metal	Fragment	1	40.2+ (L) x 3.5 (W) by 4.0 (T) cm.	Streetcar or railroad rail beam
17	T-226D, SIHP #-2918, Feature 28	Spike	Metal	Complete	1	9.8 (L) x 1.0 (D) cm.	Round head; not tapered
18	T-226D, Str. Ic	Brick	Fired clay	Fragment	1	--	Red color

Table 194. Kaka'ako Makai, T-227, Miscellaneous Historic Artifacts

Acc. # 227-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
16	T-227, St. II, SIHP #-2918	Spike?	Metal	Fragment	1	9.2 (L) cm.	Very corroded
17	T-227, St. II, SIHP #-2918	Spike, rail	Metal	Complete	1	12.0 (L) x 1.7 (D) cm.	Bi-tapering; broken head
18	T-227, St. II, SIHP #-2918	Utility pipe?	Metal	Fragment	1	14.5 (L) cm...	Very corroded
19	T-227, St. II, SIHP #-2918	Roofing tile?	Stone	Fragment	1	1.3 (T) cm.	
20	T-227, St. II, SIHP #-2918	Tile	Earthenware	Body	1	--	White glazed tile
21	T-227, St. II, SIHP #-2918	Marble	Glass	Fragment	2	1.8 (D) cm.	Opaque and clear
22	T-227, St. II, SIHP #-2918	Button	Glass	Complete	1	0.7 (D) cm.	No holes; wire shank
23	T-227, St. II, SIHP #-2918	Comb	Celluloid	Fragment	1	5.2 (L) x 3.2 (W) cm.	Long tines; possibly a hair ornament rather than a true comb
24	T-227, St. II, SIHP #-2918	Asphalt/ brick	Composite	Fragment	20	--	Small fragments

Acc. # 227-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
25	T-227, St. II, SIHP #-2918	Brick	Fired clay	Fragment	5	--	Red color
26	T-227, St. II, SIHP #-2918	Brick	Fired clay	Fragment	1	3 1/2+ x 3 3/4 x 2 in.	Red color; machine-made
27	T-227, St. II, SIHP #-2918	Brick	Fired clay	Fragment	1	3+ x 3 1/4 x 2 in.	Red color; possible mold mark; raised lip
28	T-227, SIHP #-2918, Feature 14	Nail	Metal	Fragment	1	4.0 (L) x 0.5 (D) cm.	Too corroded to see cross-section shape
29	T-227, SIHP #-2918, Feature 17	Candle stick holder?	Glass	Complete	1	5.0 (L) x 4.0 (W) x 3.0 (T) cm.	Floral pattern
30	T-227, SIHP #-2918, Feature 17	Bead	Ivory	Complete	1	4.7 (L) x 1.7 (W) cm.	Ivory bead; possibly necklace

Table 195. Kaka'ako Makai, T-227B, Miscellaneous Historic Artifacts

Acc. # 227B-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-227B, St. Ie	Brick	Fired clay	Complete	1	20.0 (L) x 9.5 (W) x 6.0 (H)	Red color; machine-made
2	T-227B, St. Ie	Horseshoe	Metal	Complete	1	15.0 (L) x 12.0 (W)	Rusted metal

Table 196. Kaka'ako Makai, T-231A, Miscellaneous Historic Artifacts

Acc. # 231A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
16	T-231A, St. Ig, SIHP #-7189	Box lid - Asian	Soapstone?	Complete	1	19.5 (L) x 9.5 (W) x 2.0 (T) cm.	Possibly for sealing paste
17	T-231A, St. Ig, SIHP #-7189	Possible lamp base	Ceramic	Fragment	1		
18	T-231A, St. Ig, SIHP #-7189	Insulator	Glass	Fragment	2		Embossed around top rim: "PAT DEC.19.1871" [patent date]; aqua color; threaded
19	T-231A, St. Ig, SIHP #-7189	Brick	Fired clay	Fragment	1	4 1/4+ x 3 1/2 x 2 in.	Red color; machine-made

Acc. # 231A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
20	T-231A, St. Ig, SIHP #-7189	Tubular item	Charcoal	Fragment	1	6.5+ (L) x 1.0 (D) cm.	Compressed solid tube; for drawing?
21	T-231A, St. Ig, SIHP #-7189	Window	Glass	Fragment	6	--	Clear; small fragments
22	T-231A, St. Ic	Chert	Chert	Flake/piece	1	28.5 (L) x 22 (W) x 10.0 (T) cm.	Cortex on edge of chert; chert included ship ballast and strike-a- lights in the early post-Contact period (Goodwin and Allen 2005:67)

Table 197. Kaka'ako Makai, T-232, Miscellaneous Historic Artifacts

Acc. # 232-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
6	T-232, St. If, SIHP #-7189	Marble	Clay	Complete	1	1.4 (D) cm.	Tan color; polished
7	T-232, St. If, SIHP #-7189	Shell - abalone	Shell	Fragment	1	1.7+ (L) cm.	Cut into thick strip and polished on three sides; unknown decorative function

Table 198. Kaka'ako Makai, T-232A, Miscellaneous Historic Artifacts

Acc. # 232A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
12	T-232A, St. Ie, SIHP #-7189	Button	Shell	Fragment	1	--	Iridescent marine shell button; fragment with center hole
13	T-232A, St. Ie, SIHP #-7189	Straps - harness?	Leather	Fragment	4	25.0 (L) x 3.8 (W) x 2.0 (T) cm.	
14	T-232A, St. Ie, SIHP #-7189	Lamp fragment?	Glass	Fragment	1	8.1 (L) x 2.0 (D) cm.	
15	T-232A, St. Ie, SIHP #-7189	Pavement block?	Stone	Fragment	1	12.5 (L) x 4.0 (W) x 2.0 (T) cm.	

Acc. # 232A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
16	T-232A, St. Ie, SIHP #-7189	Lid	Ceramic	Complete	1	7.1 (D) cm	Toothpaste jar; transfer print; monochrome version (dark green); Trade [Mark]/John Ed[wards] c. 1880-1900; "CHERRY TOOTH PASTE/PATRONIZED BY THE QUEEN/FOR BEAUTIFYING AND RESERVING THE TEETH & GUMS/EXTRA MOIST/PREPARED BY JOHN GOSNELL & CO LONDON" printed on lid top (Stoke-on-Trent 2013)

4.15.4 Summary of Artifact Assemblage from Kaka'ako Makai

The artifact assemblage from Kaka'ako Makai is similar to the West Kaka'ako material, and different from the Kewalo and Kālia areas. It is comprised of late nineteenth- to early twentieth-century (ca. 1870s–1920) bottles. The ceramics are a mixture of British, German, Euro-American, and Asian nineteenth century wares. One of the interesting miscellaneous items is a spike and a portion of the track that may be part of the old 1898–1933 Honolulu streetcar system.

4.16 Honolulu District Historic Artifacts

4.16.1 Previous Honolulu District Archaeological Studies Historic Artifact Analyses

A number of studies of collected historic artifacts have been written for archaeological projects in the Honolulu and Kaka'ako area, discussed below by project generally west to east, from Honolulu to Kaka'ako and Kālia.

In the River-Nimitz project (Landrum and Dixon 1992), both early pontiled bottles and later mold-blown bottles were found. The deposits at this site terminated around 1900, when many buildings were razed after the 1900 Chinatown fire destroyed most of the western section of Honolulu. For the ceramics, the researchers noted that European and Oriental wares were found most often in pre-1865 features, and American wares most common after the end of the Civil War in 1865 (Hurst 1992:13-14).

In the Chinatown area, between River and Kekaulike Streets, two city blocks have been investigated. In the 'Ewa block, between Kekaulike and River, a wide variety of artifacts were collected, with bottles dating from 1800 to 1940.

The Diamond Head block of the Kekaulike project (between Kekaulike and Maunakea streets), had deposits that were dated to six time periods: Pre-Human (before BP 2000), Pre-Contact (from Hawaiian colonization to AD 1778), from Contact to the Māhele (1778–1850), Early Chinatown (1850 to the 1900 Chinatown fire), Growth and Stabilization (1900–1950) and the Modern Era (post 1950). Some early Chinese ceramic wares were found in the pre-1850 deposits, but the bulk of the artifact assemblage was associated with the Early Chinatown deposits. Both Chinese and Japanese wares were found; however, the Japanese “Dashed Line” Transfer prints were not found (Goodwin and Allen 2005:236-244).

In the 'Ewa block of the Kekaulike project ceramics were dominated by nineteenth century Asian and Western wares. One early pontil lip, dated to 1780–1800 was found, but most of the bottles were mold blown from the mid-nineteenth century to the 1920s. One section of the project was a former fishpond, filled in with soil and trash from the mid-to late-nineteenth century (Kennedy et al. 1994:1350-137, 142).

The Marin Tower project was another study with a wide time period of use, from ca. 1810 to the present. In the 1810 to 1850 period, European wares dominated. In the 1850-1900 period, the presence of Chinese merchants were mirrored in the artifact collection, as Chinese medicine bottles and ceramics were found (Goodwin et al. 1996:359-362). Historic artifacts also were found in the post-1900 period, but the artifacts are not summarized as a whole, but rather mentioned for a variety of features in several blocks.

For the Chinatown Gateway Plaza, on the corner of Bethel and Hotel streets, twenty-five bottles were collected, all dating from the 1880s to 1920. Similar to many of the test excavations for the HHCTCP project, there were no early free-blown bottles and no machine-blown bottles, indicating that trash-fills were most common in the decades around the turn of the century. Many of the bottles were liquor bottles. Ceramics were briefly described as a mixture of Western/Asian wares (Pantaleo 1988:10-13).

For the 800 Nu'uaniu Block at Nu'uaniu between Marin and Smith streets (Lebo and McGuirt 2000a, 2000b), a wide variety of bottles and ceramics from the early nineteenth century into the

twentieth century were collected. In the cultural zone from 1810 to 1830, white earthenwares, olive green bottles, and handmade bricks were found. In the 1830s–1860s cultural zone, English earthenwares and Asian porcellaneous stoneware and porcelains predominated. Some pontiled and snap case bottles also were found. In the 1860s–1890s cultural zone, turn mold bottles were the most common type, while the ceramic collection was dominated by English refined earthenware ironstones and Chinese ceramics. In the 1890s–present zone, mold-blown bottles were still found (Lebo and McGuirt 2000b:85, 114-117, 141, 161-162).

The most extensive study of historic artifacts in the Honolulu area was the study of Harbor Court (first called Nu‘uanu Court) on the corner of Bethel and Queen Streets (Hurst and Allen 1992; Lebo 1997; Lebo 2002). Development in this area began in the 1790s and early mold-blown bottles, early ceramics such as tin-glazed earthenwares, creamwares, pearlwares, and transitional whitewares were found, and brick foundations dating from 1820–1890 were observed (Hurst and Allen 1992:88). During data recovery in this area, archaeologists found a blending of Hawaiian and foreign residents’ cultural material in the types and modifications of traditional and Western goods. Most of the ceramics date from ca. 1762–1900 (Lebo 1997:73-74). Free-blown bottles with pontil marks (ca. pre-1850) and mold blown bottles (ca. post-1900) were collected (Lebo 1997:73-74, 89). In addition, buttons, beads, tobacco pipes, pencils, cutlery, gunflints, building stone, window glass, nails, and other construction material also were collected and analyzed.

Some early studies included brief discussions of historic artifacts from the Kaka‘ako area. In 1986, ceramics and bottles observed during monitoring for the Judiciary Parking Garage on Pohukiana and South streets (Athens 1986) were briefly described. In the fill layers, 1890s to 1920s blob top bottles and post-1903 ABM bottles were found. In 1987, historic artifacts were found during the construction of the Makai Parking Garage on Punchbowl and Halekauwila streets. Twenty-five bottles and bottle fragments were recorded in a fishpond fill layer, mainly dating from 1880-1910, but with some dating early in the nineteenth century. Fishponds in the Kaka‘ako area were filled in between 1901 to 1912; therefore, 1912 would be the end date for pond filling in Kaka‘ako (Clark, S. 1987:117). During monitoring for the Judiciary site in 1988 on South Street between Halekauwila and Reed Lane, 1880s–1920s embossed bottles and turn mold-bottles were found. The majority of the ceramics were Asian rather than European. In recent years, more extensive studies have been conducted in the Kaka‘ako area. In one block between Pohukaina, Halekauwila, Keawe, and South St., numerous bottles were found during excavations at the Block 2 Parking Lot. Most of the bottles are mold-blown and date to the 1880s to 1920s period, but there was also an admixture of twentieth century machine-made ABM bottles. Euro-American ceramic wares, including ironstones, and Chinese ceramic wares, with Bamboo, Four Seasons, Four Flowers, and Double Happiness decorations also were common (Pammer et al. 2011:256, 271).

4.16.2 Summary of Historic Artifact from the HHCTCP Project

There were mainly two types of historic deposits examined in the test excavations in the HHCTCP project, a twentieth century deposit found in the western and eastern areas, and a mainly late nineteenth/early twentieth century deposit found in the central Honolulu and Kaka‘ako areas. In the West Kalihi (T-018) and East Kapālama (T-060, T-064, T-065, T-066, and T-082) Geographic Zones (western areas), fill layers had machine-blown bottles (ABM)

dating from the 1930s to 1940s. In the Iwilei area (western area), bottles post-dated ca. 1900 and included both mold-blown bottles and machine-blown bottles (T-086, T-087, and T-089) with bottles dated to the 1910s to 1930s. This is probably an indication of the late development of these areas in the expansion of the urban area of Honolulu or the late date for the use of this area for trash deposit. In the Downtown, West and East Kaka'ako, and Kaka'ako Makai Geographic Zones (central section), test excavations documented mainly fill layers with trash from the late nineteenth century into the early twentieth century. Bottles typically dated from the 1870s to the 1920s, within the mold-blown period (ca. 1800-1920). There was one definitely free-blown bottle with a pontil mark (Kaka'ako Makai, T-227A), which would indicate a pre-1850 date for an American/Canadian made bottle. However, this bottle was probably made by a British or other European company that was slower to abandon the older manufacturing techniques and made some free-blown bottles with pontils into the 1920s. In the Downtown and Kaka'ako deposits, there were few machine-blown (post-1903 to present) bottles, especially bottles that could be dated to the post-1920s period. In the Kālia Geographic Zone (eastern section), some test excavations (T-214 and T-222) have only post-1920s material, indicating the late commercial development of this area or the late use of this area for trash deposit. There are also test excavations (T-200 and T-202) with the same type of 1870s to 1920s artifacts as the Kaka'ako area, either from deposition of nearby domestic refuse, from open-air burning, or the use of trash to fill in this former low-lying wetland area.

The ceramics dates in these test excavations mirrored the late-nineteenth to early twentieth century bottle dating results. Some of the Euro-American ceramics with datable company marks (T-121, T-130, T-143, T-232A) could have been manufactured as early as the 1850s, but most likely date to the late 1800s. The exported Asian wares are common artifacts found in nineteenth-century archaeological deposits from American towns with sizeable Chinese and Japanese communities. The Chinese wares have a long manufacturing date range, but the Japanese "Dashed Line" porcelains were made and exported from the 1870s to ca. 1920, and are usually found in deposits dating to that age period (Ross 2012a:5, 7).

In the Iwilei Geographic Zone, from test excavations (T-086, T-089, and T-090) near the former OR&L railroad terminal building, several rail spikes were collected. The spikes were found in large in-filled trash pits with bottles dating to the machine-blown era (post-1903) with some bottles dated more narrowly to the 1920s to 1930s. In the Kewalo Geographic Zone (T-164) and in Kaka'ako Makai (T-227) railroad spikes and a part of a railroad track (T-226D) were found. In this case, the rail may be part of the Honolulu streetcar system that operated from 1898 to 1933. Much of the construction debris (nails, bricks, milled wood, etc.) is probably also the result of some commercial enterprise, as the Honolulu area, especially before the 1900 Chinatown fire, was a mixture of commercial and residential buildings. Before, and especially after, the fire, industries and residences began to move into the Kaka'ako area to the east. To develop this area, people were encouraged to take their trash and fill in former ponds and swamps (Griffin et al. 1987:13; Hawaii Supreme Court 1915:329). Large sections of Kaka'ako also were used for open-air trash burning (Young 2005).