

1

PA Summary

DoD Site #

4

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-140-440	BENICIA INTERNL ASSOC	711 JACKSON STREET
0080-140-450	BENICIA INDUSTRIES	981 BAYSHORE ROAD

Year Bldg. Built: 1948 Year Bldg. Removed: Early 1970s Site Area (SqFt): 7668

Current Land Use: Industrial-Waterfront

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Sandblast Building/Paint Spray

Secondary DoD Uses

Paint Spray/Shed

Post-Army Uses

1973: dredging and general construction shop for Dillingham Construction Corporation (with TO73)

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

During the latter half of 1950 a vacuveyor sand pickup system and two sandblast rooms were installed for cleaning medium size parts. A letter to the division engineer, dated 13 July 1953, stated that the paint and sandblasting facilities were in need of renovation. The renovation letter had a footnote stating that the facilities did not include canopies or acid proof brick flooring. No acid baths had been identified. 1953 renovation plans for sandblast facilities were submitted, but records do not indicate if renovation was performed. According to Guide Sheet A, dated 1957, the building had been constructed without pilings on reclaimed tideland and had settled beyond economic repair. Building was demolished in early 1970s.

Records Research Report Comments

Building served as part of the reclamation project for World War II equipment returns. Records Research indicates that the floors had sunk and the floor drains could not operate resulting in unhealthy working conditions.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

Army records do indicate that by 1957 the building settled beyond "economic repair" such that the floors had sunk and the floor drains were not operating. Therefore, it may be assumed no post-Army use was possible.

RECOMMENDATIONS

Additional investigation is recommended at this site to determine the potential groundwater impacts from the possible disposal

PA Summary

DoD Site #

15

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-140-440	BENICIA INTERNTL ASSOC	711 JACKSON STREET			
Year Bldg. Built	1926	Year Bldg. Removed	Post 1963	Site Area (SqFt)	63
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Fuel Storage Facilities

DoD Uses

Pump house-fuel oil

Secondary DoD Uses

Fuel type

Post-Army Uses

None Identified

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Approximate Building vacate date 12/31/63 (ref 713).

Records Research Report Comments

Portions of facility (foundation and retaining wall) still remain. Presumably served Fuel Storage Tank Building 178 and possibly 118A.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

SI

COMMENTS

In June 2000, the USACE conducted a geophysical survey to locate underground fuel lines formerly used to transfer fuel from above ground storage tanks (Building 178 and possibly Building 118A) to neighboring buildings (for example, the locomotive buildings at Building 156 and 90). The survey located fuel lines extending east and north from the area where they were exposed at former Building 15 (ref 1060). Pipelines were exposed at the surface based on the geophysical survey. No evidence of staining was present when the pipelines were exposed. The north trending pipeline was not fully uncovered due to a retaining wall. The retaining wall would have to be partially removed to expose the pipeline. Therefore, per agreement with the USACE, further investigation of this pipeline was not conducted due to the possibility of an unstable slope (ref 1060).

RECOMMENDATIONS

The above ground portion of the fuel lines at Building 15 (confirmed by the geophysical survey) was recommended to be removed as a preventative measure to eliminate the potential for future use. The below ground portion of the fuel lines was

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DoD Site #

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Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-140-100	BENICIA INDUSTRIES INC	1200 ADAMS STREET
Year Bldg. Built	1951	Year Bldg. Removed
		Not applicable
Current Land Use	Industrial-Waterfront	
	Site Area (SqFt)	242

OPERATIONAL HISTORY

DoD Use Type

Utilities

DoD Uses

Transformer House

Secondary DoD Uses

Transformer

Post-Army Uses

None Identified

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Unknown

Records Research Report Addenda Data

Designated as a transformer vault in the 1961 Facility Data Sheet.

Records Research Report Comments

Photo on file of un-kept location. Building remains.

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	Vault	US Army	0	Concrete	Transformer	1951	Present	Unknown	<input type="checkbox"/>

Uses: Utility Vault

Comments: Unknown what type of transformers were in building. Transformers have been removed. No staining observed in building.

Furthest Stage of Environmental Investigation

NONE

COMMENTS

On February 12, 2004, a site visit was conducted to determine if the transformer(s) remain in the building. The transformers have been removed. There was no evidence of staining on the concrete floor or outside of the building from possible leakage of the former transformer(s). There is no visual evidence indicating any potential environmental concerns related to DoD activities at this site.

PA Summary

DoD Site #

23

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-140-400	ALLEN DAVID W	1050 JACKSON STREET
Year Bldg. Built	Unknown	Year Bldg. Removed
		1958-1961
Current Land Use	Mixed Use-Lower Arsenal	
	Site Area (SqFt)	35

OPERATIONAL HISTORY

DoD Use Type

Utilities

DoD Uses

Transformer Vault

Secondary DoD Uses

Transformer

Post-Army Uses

None Identified

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Unknown

Records Research Report Addenda Data

The 1957 building inventory lists this building as a Transformer House (ref 167).

Records Research Report Comments

Near Building 47 identified on 1954 map (ref 646). DoD removed the structure prior to Arsenal Deactivation in 1964. The building was not included in the 1961 Facility Data Sheet. Structure exists on a 1958 Map (ref 643)

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	Vault	US Army	0	Unknown	Transformer	Unknown	pre 1964	No	<input type="checkbox"/>

Uses: Transformers

Comments: Unknown what type of transformers were in vault.

Furthest Stage of Environmental Investigation

NONE

COMMENTS

There are no records indicating any potential environmental concerns related to DoD activities at this site.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

25

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)

Owner Name

Site Address

0080-150-020

DAVID STEPHEN F

951 JEFFERSON STREET

Year Bldg. Built

1874

Year Bldg. Removed

Not applicable

Site Area (SqFt)

7327

Current Land Use

Mixed Use-Lower Arsenal

OPERATIONAL HISTORY

DoD Use Type

Housing

DoD Uses

Lieutenant's quarters

Secondary DoD Uses

Fuel type

Post-Army Uses

Residence

Flooring

Wood

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

250-gallon fuel oil tank and burner installed December 1929.

Records Research Report Comments

Located west of Building 29, the Clock Tower.

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity	Date	Date	Post-	Installed
					Stored	Installed	Removed	Army	Post-Army
1	UST	US Army	250	Unknown (likely steel)	Fuel oil	1929	Unknown	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments: 1999 investigation unable to find. Assumed to be removed.

Furthest Stage of Environmental Investigation

RIFS

COMMENTS

In June 2000, the USACE conducted a geophysical survey and the excavation of one test pit to determine the location of fuel lines and an associated fuel oil UST. The UST fueled a boiler in the basement of Building 25. The geophysical survey did not locate any anomalies that would be the size of the UST. The survey did trace two fuel lines from the building basement (former location of the boiler) to an abrupt end in front of the building. One test pit was excavated to investigate the end of the fuel

PA Summary

DoD Site #

25

Area: I

lines. The two lines were cut and uncapped. No indication of a UST or any odors, staining or other field indications of fuel leakage were observed. No water was encountered in the excavation, and no samples were collected from the test pit (ref 1063).

RECOMMENDATIONS

Based on the findings from this investigation, no further investigation is recommended.

PA Summary

DoD Site #

26
Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address	
0080-150-020	DAVID STEPHEN F	951 JEFFERSON STREET	
Year Bldg. Built	1874	Year Bldg. Removed	Not applicable
Current Land Use		Site Area (SqFt)	6420
Mixed Use-Lower Arsenal			

OPERATIONAL HISTORY

DoD Use Type

Housing

DoD Uses

Lieutenant's quarters

Secondary DoD Uses

Fuel type

Post-Army Uses

Residence

Flooring

Wood

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

250-gallon fuel oil tank and burner installed in October 1928.

Records Research Report Comments

Located west of Building 29, the Clock Tower.

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date	Date	Post-Army	Installed Post-Army
						Installed	Removed		
1	UST	US Army	250	Steel	Fuel oil	1928	2002	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments: UST appears to be intact with no obvious holes or punctures (BC Ref 1078). Removed by USACE (BC Ref 1053).

Furthest Stage of Environmental Investigation

RIFS

COMMENTS

In June 2000, the USACE conducted a geophysical survey and excavated one test pit to investigate the fuel lines and associated fuel oil UST. The UST fueled a boiler in the basement of Building 26. The survey located a suspected fuel line exiting the basement of Bldg 26 to an anomaly the size of the suspected UST located adjacent to the Jefferson Street sidewalk. A steel 250-gal UST was encountered. Soil samples were collected. The UST appeared to be intact with no obvious holes or punctures. Diesel fuel was reported at a maximum concentration of 160 mg/kg at 6.3 feet bgs. A deeper sample collected from 8.5 feet bgs

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DoD Site #

26

Area: I

at the same location was 50 mg/kg. No field indications of fuel leaks or spills from the UST were observed. No water was encountered in the excavation (ref 1063). In February 2002, the USACE planned to excavate soil to remove the two 250-gal. fuel oil tanks at Buildings 26 & 28. Associated product piping at these two locations will be flushed, capped, and left in place (ref 1053). Between March and April 2002, the USACE removed the UST, associated product piping, properly abandoned the UST, and collected soil samples beneath the former tank and product piping. Diesel fuel and motor oil were detected in three soil samples at a maximum concentration of 70 and 89 mg/kg, respectively. Based on the sample results, detectable hydrocarbons concentrations in soil appeared restricted to the immediate UST excavation area. Groundwater was not encountered. Therefore, no groundwater samples were taken (ref 1125).

RECOMMENDATIONS

Sub-meter GPS information is required for all such cases for inclusion in the RWQCB's regional leaking UST database and the statewide Geotracker database.

PA Summary

DoD Site #

27

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address	
0080-150-200	ROBBINS J REED	1063 JEFFERSON STREET	
Year Bldg. Built	1861	Year Bldg. Removed	Not applicable
Current Land Use		Site Area (SqFt)	7725
Mixed Use-Lower Arsenal			

OPERATIONAL HISTORY

DoD Use Type

Housing

DoD Uses

Captain's Quarters

Secondary DoD Uses

Fuel Type

Post-Army Uses

Residence

Flooring

Wood

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

250-gallon fuel oil tank and burner installed in October 1928.

Records Research Report Comments

Located east of Buildings 25 and 26.

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	UST	US Army	250	Unknown (likely steel)	Fuel oil	1928	Unknown	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments: Unknown if tank is still present.

Furthest Stage of Environmental Investigation

NONE

COMMENTS

Unknown what happened to the fuel tank. Current landowners of Bldg 27 denied the USACE permission to conduct a geophysical survey and an intrusive survey (if necessary) to find the location of a suspect UST. (ref 1060).

RECOMMENDATIONS

Investigation into the location of the suspected UST is recommended. If the UST is located, a subsurface investigation is

PA Summary

DoD Site #

27

Area: I

recommended to determine the presence or absence of fuel, oil, and lead in soil and groundwater (if present) for a possible release from the UST.

PA Summary

DoD Site #

28

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address	
0080-140-090	BENICIA CITY		
Year Bldg. Built	1860	Year Bldg. Removed	Not applicable
Site Area (SqFt)	12963		
Current Land Use	Public		

OPERATIONAL HISTORY

DoD Use Type

Housing

DoD Uses

Quarter's Commanding Officer

Secondary DoD Uses

Fuel Type

Post-Army Uses

Currently vacant

Flooring

Wood

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

250-gallon fuel oil tank and burner installed October 1928.

Records Research Report Comments

Located east of Building 27.

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	UST	US Army	250	Steel	Fuel oil	1928	2002	Unknown	<input type="checkbox"/>
Uses: Fuel Storage Comments: Removed by USACE (BC Ref 1053).									

Furthest Stage of Environmental Investigation

RIFS

COMMENTS

In June 2000, a geophysical survey was completed and one test pit was excavated to locate fuel oil lines and an associated UST. The UST fueled a boiler in the basement of the building. Additionally, the geophysical survey planned to locate any drain lines connecting the known cisterns and catch basins on the west and east sides of building. The survey identified the location of the suspected fuel lines exiting the boiler room. The survey was inconclusive regarding the presence of a UST. The survey was unable to locate any buried drain lines associated with the catch basins and cisterns at Building 28. In October 2000, one test pit

PA Summary

DoD Site #

28

Area: I

was excavated and revealed a steel UST filled with liquid that had a strong hydrocarbon odor. Soil samples were collected; no odors, staining or other field indications of fuel leakage were observed. The UST appeared intact with no obvious punctures or holes. All analytical results for soil samples were below analytical reporting limits. No water was encountered in the excavation (ref 1063). In February 2002, the USACE planned to excavate soil to remove the 250-gallon fuel oil tank at Building 28. Associated product piping will be flushed, capped, and left in place (ref 1053). Between March and April 2002, the UST and associated product piping was removed. Soil samples were collected beneath the former tank and product piping. Diesel fuel and motor oil were detected in one soil sample at a maximum concentration of 360 mg/kg and 910 mg/kg, respectively at sample location B28-B1-6'. Based on the results of samples collected from this excavation, hydrocarbons concentrations in soil appeared restricted to the immediate UST excavation area. No groundwater samples were taken (ref 1125).

RECOMMENDATIONS

Sub-meter GPS information is required for all such cases for inclusion in the RWQCB's regional leaking UST database and the statewide Geotracker database.

PA Summary

DoD Site #

29

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-140-090	BENICIA CITY				
Year Bldg. Built	1859	Year Bldg. Removed	Not applicable	Site Area (SqFt)	22811
Current Land Use	Public				

OPERATIONAL HISTORY

DoD Use Type

Storehouses and Warehouses

DoD Uses

Storehouse for guns, explosives, paints, oils, gunpowder, and various types of weaponry.

Secondary DoD Uses

Storage

Post-Army Uses

Community Center for the City of Benicia

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

18 October 1912 the building was severely damaged by fire due to an explosion. The cause of the explosion and fire was never determined. A Survey and Condition Report dated 13 January 1955, indicated that the National Guard had exclusive use of approximately 8,250 square feet on the first floor for vehicle storage and equipment maintenance and 1,325 square feet of space on the second floor for administration and supply and for training and recreational purposes (ref 53).

Records Research Report Comments

Items destroyed in the 1912 fire include: gallery practice cartridges, metallic packing chests, dies, die stocks, and bullet gauges, gun powder, and .30 caliber cartridges. There were a number of explosions which threw burning particles and other articles over the walls of the building to the outside. Explosions thought to occur from primers stored on the third floor and the .30 sub caliber cartridges stored on the bottom floor were the only high explosives stored in the building. Two years after the fire the building was rebuilt, less one story and one tower. A time piece was installed on the single crenellated tower. The structure became known as the Clock Tower (ref 165). Former Arsenal employee, Delmar Clyma (1940 to 1963) stated that .30 and .50 caliber ammunition was stored on the bottom floor of Building 29. Vehicles would drive directly into the building and load up the ammunition (Clyma, 1997).

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

Since the 1912 fire, the area has been seen many improvements in the form of parking structures and the addition of the refinery pipelines. There are no reports of any OE found in the area as a result of the 1912 explosion.

PA Summary

DoD Site #

29

Area: I

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

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DoD Site #

30

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-130-020	BENICIA CITY				
Year Bldg. Built	Pre 1905	Year Bldg. Removed	1932-1945	Site Area (SqFt)	586
Current Land Use	Industrial-Waterfront				

OPERATIONAL HISTORY

DoD Use Type

Utilities

DoD Uses

Water Pump house

Secondary DoD Uses

Fuel type

Post-Army Uses

None Identified

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Building completely destroyed by fire in 1905. Building 30 appeared on a 1932 Map (ref 651), but the structure does not appear on a 1945 map (ref 650).

Records Research Report Comments

According to the records approximately 5 tons of coal also burned in the 1905 fire. An investigation determined that the facilities door lock had been broken and a 5-gallon can with lubricating oil was found on the coal pile. The building was rebuilt behind the railroad track on the edge of the Carquinez Strait behind a high embankment (ref 200).

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

Further research was conducted to locate the rebuilt building and the source that powered the pumps. A 1918 map of the Arsenal identifies Building 30 to be located approximately 450 feet up the draw on the north side of Clock Tower Hill. As of 1945, Arsenal maps do not have a Building 30 listed and a building is longer present in the location shown on the 1918 map. Additionally, the 1918 map shows the building was powered by electricity. Therefore, it is assumed that the building had been removed prior to 1945 and the power source for the pump was most likely electrical. There are no records indicating any potential environmental concerns related to DoD activities at this site.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

31

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address	
0080-140-170	J R SCHNEIDER CO INC	849 JACKSON STREET	
Year Bldg. Built	1942	Year Bldg. Removed	Not applicable
Site Area (SqFt)	25677		
Current Land Use	Mixed Use-Lower Arsenal		

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Store House/Engine Rebuild

Secondary DoD Uses

Fuel Storage Facilities

Post-Army Uses

None Identified

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Inside/Outside

Records Research Report Addenda Data

Assembly Rebuild included a Teardown and Cleaning Room with a caustic tank (6'x6'x4'), caustic tank (6'x3'x4'), acid tank (5'x5'x4') and a hot water tank (6'x6'x4'). Assembly included a solvent tank and a degreaser. Accessory Section included a 60 ton hydraulic press, caustic tank (1.5'x2'x1.5') and dichromate tank (1.5'x2'x1.5') (ref 714). In 1951, a gas fired boiler was installed and services included complete rehabilitation of worn Chevrolet engines. A 1952 survey report by Brown and Caldwell, indicated that there was a steam cleaning operation for engine blocks and performed degreasing and dipping operations. There was possible fuel storage in the dynamometer room. Drawing 5357, dated 5 August 1952 identifies three exhaust hoods (indicating processing tanks), dynamometer room, drain lines, and paint spray booth. Listed on a 1958 Map (ref 643).

Records Research Report Comments

In 1942, the building was used as a Store House. Sometime after 1945, the building used for Engine Rebuild Operations. There was a Service Pump and underground fuel tank associated with Building 31. The building also two dip tanks. Building is no longer present; platform remains. The gas pump was located adjacent to the east wall of Building 91 that abuts Building 31. Approximately 7 feet south of the gas pump are 2-inch gas tank vents and a gas gauge riser is located a few feet east of the vents. The pump is no longer present but the raised foundation of Building 31 remains. There is no indication of when the pump was removed. The building included a steam cleaning facility at the southeast end of the building.

ENVIRONMENTAL SUMMARY

Vessel Inventory

Type	Original Owner	Size (Gal)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army

PA Summary

DoD Site #

31

Area: I

Vessel Inventory

	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
Vessel # 1	AST	US Army	0	Unknown	Unknown	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Drawing 5357 dated 5 August 1952 identifies three exhaust hoods indicating processing tanks.									
Vessel # 2	AST	US Army	0	Unknown	Unknown	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Drawing 5357 dated 5 August 1952 identifies three exhaust hoods indicating processing tanks.									
Vessel # 3	AST	US Army	0	Unknown	Unknown	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Drawing 5357 dated 5 August 1952 identifies three exhaust hoods indicating processing tanks.									
Vessel # 4	AST	US Army	0	Unknown	Caustics	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Pre-1957 based on Reference 714, Equipment List for New Facility.									
Vessel # 5	AST	US Army	0	Unknown	Caustics	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Pre-1957 based on Reference 714, Equipment List for New Facility.									
Vessel # 6	AST	US Army	0	Unknown	Acid	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments:									
Vessel # 7	AST	US Army	0	Unknown	Hot Water	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments:									
Vessel # 8	UST	US Army	0	Unknown	Unknown Fuel	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Fuel Storage Comments: Unknown if tank is still present.									
Vessel # 9	AST	US Army	0	Unknown	Caustics	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Pre-1957 based on Reference 714, Equipment List for New Facility.									
Vessel # 10	AST	US Army	0	Unknown	Dicromate	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
Uses: Dicromate Tank Comments: Pre-1957 based on Reference 714, Equipment List for New Facility.									
Vessel # 11	Booth	US Army	0	Unknown	Paints	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
Uses: Paint Booth Comments: Pre-1957 based on Reference 714, Equipment List for New Facility.									

Furthest Stage of Environmental Investigation

NONE

COMMENTS

Many activities occurred in this building that could potentially impact the surrounding areas. One gas-fueled boiler was installed. (ref 1093). The status of the UST is unknown.

RECOMMENDATIONS

A subsurface investigation is recommended to determine the presence or absence of fuel and oil in groundwater downgradient

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Area: I

of the site for a potential release from former cleaning and degreasing activities. Additional research is also recommended to determine the status of the suspected UST.

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DoD Site #

41

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-140-100	BENICIA INDUSTRIES INC	1200 ADAMS STREET			
Year Bldg. Built	1941	Year Bldg. Removed	Post 1962	Site Area (SqFt)	105
Current Land Use	Industrial-Waterfront				

OPERATIONAL HISTORY

DoD Use Type

Utilities

DoD Uses

Pump House-Sewage

Secondary DoD Uses

Fuel type

Post-Army Uses

Sewage lift station for City of Benicia

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Unknown

Records Research Report Addenda Data

Building listed on a 1962 Building Zone List (ref 713).

Records Research Report Comments

Beneficial use

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

The station is a current lift station. Power for the lift station is likely electrical.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

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DoD Site #

42

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-150-090	WHITEHEAD ROBERT & E	941 GRANT STREET
Year Bldg. Built	Year Bldg. Removed	Site Area (SqFt)
1919	Not applicable	6053
Current Land Use		
Mixed Use-Lower Arsenal		

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Garage/Repair Shop

Secondary DoD Uses

Fuel type

Post-Army Uses

None identified

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Assembly Rebuild included a Teardown and Cleaning Room with a caustic tank (7'x3'x4') and solvent washer (48"x36"). Power Train included three (3) hydraulic presses and a 60 ton hydraulic press (ref 714).

Records Research Report Comments

It is unknown when the building became renovated from a garage to a repair shop.

ENVIRONMENTAL SUMMARY

Vessel Inventory

	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
Vessel # 1	AST	US Army	0	Unknown	Caustics	Pre-1957	Unknown	Unknown	<input type="checkbox"/>

Uses: Caustic Tank

Comments: Pre-1957 based on Reference 714, Equipment list for new facility.

Furthest Stage of Environmental Investigation

NONE

COMMENTS

The types of activities that occurred at the building may indicate possible impact to the subsurface.

RECOMMENDATIONS

A subsurface investigation is recommended to determine the presence or absence of fuel, oil, and solvents in groundwater downgradient of the site for a potential release from former cleaning and degreasing activities.

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DoD Site #

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Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-150-440	SIMPKINS WILLIAM C	980 ADAMS STREET
0095-721-100	GROSSMAN LAWRENCE I & SUSAN C	940 ADAMS STREET

Year Bldg. Built: 1943 Year Bldg. Removed: Post 1967 Site Area (SqFt): 6600

Current Land Use: Mixed Use-Lower Arsenal

OPERATIONAL HISTORY

DoD Use Type: Utilities

DoD Uses: Utilities building/Mechanical Shop/Electrical Shop

Secondary DoD Uses: Paint Spray/Shed

Post-Army Uses: 1967: leased by H & D Machinery for machine shop operations (ref 587 and 702).

Flooring: Unknown

Disposal Information: None Listed

Activities (inside/outside): Unknown

Records Research Report Addenda Data
 The 1 January 1957 inventory of buildings identified Building 44 as Depot Facilities Shops. All installation maps designate this building as a utilities building. A survey report of industrial and commercial development published for Benicia Industries in January 1964 identified this building as a mechanical or electrical shop (ref 540).

Records Research Report Comments
 Former coal shed, electrical shop with paint spray booth (1952). Electrical supplies were stored here. Building listed on a 1962 Building Zone List (ref 713).

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation: NONE

COMMENTS
 May have contained a paint booth, mechanical shop, electrical shop, or utilities. Post-Army use is a mechanical or electrical shop. The building no longer exists. There are no records indicating any environmental concerns related to DoD activities at this site.

RECOMMENDATIONS
 No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

45

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-150-130	WATSON KAREN ANN	983 GRANT STREET
Year Bldg. Built	Year Bldg. Removed	Site Area (SqFt)
1872	Not applicable	10239
Current Land Use		
Mixed Use-Lower Arsenal		

OPERATIONAL HISTORY

DoD Use Type

Housing

DoD Uses

Enlisted Men's Barracks

Secondary DoD Uses

Fuel type

Post-Army Uses

None Identified

Flooring

Wood

Disposal Information

None Listed

Activities (inside/outside)

Outside

Records Research Report Addenda Data

400-gallon fuel oil tank and burner installed in 1929 (ref 130).

Records Research Report Comments

Located north of Grant Street at Roosevelt

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	UST	US Army	400	Unknown (likely steel)	Fuel oil	1929	Unknown	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments: Unknown if tank is still present.

Furthest Stage of Environmental Investigation

NONE

COMMENTS

Unknown what happened to the fuel tank. Planned geophysical survey activities were delayed by current landowner's renovation activities to assess the location of the UST and associated lines. If geophysical results indicate the possible location of the UST, then a test pit will be excavated to confirm the location of the UST and associated piping. Soil samples are planned during the excavation (ref 1063).

PA Summary

DoD Site #

45

Area: I

RECOMMENDATIONS

Investigation into the location of the suspected UST is recommended. If the UST is found, a subsurface investigation is recommended to determine the presence or absence of fuel, oil, and metals in soil and groundwater (if present) from a possible release from the UST.

PA Summary

DoD Site #

46A

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-150-170	ALLEN ANDREW E	1000 GRANT STREET			
Year Bldg. Built	1864	Year Bldg. Removed	1922	Site Area (SqFt)	818
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Vocational Training Paint and Carpenter Shop

Secondary DoD Uses

Paint Spray/Shed

Post-Army Uses

None Identified

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

None Identified

Records Research Report Comments

Structure burned in 1922 along with tools and paint materials

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

Building destroyed in fire. There are no records indicating any potential environmental concerns related to DoD activities at this building.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

46(B)

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-150-290	ORMOND THOMAS R	938 ADAMS STREET
0095-721-100	GROSSMAN LAWRENCE I & SUSAN C	940 ADAMS STREET

Year Bldg. Built: 1943 Year Bldg. Removed: 1957-1962 Site Area (SqFt): 7691

Current Land Use: Mixed Use-Lower Arsenal

OPERATIONAL HISTORY

DoD Use Type
Administrative

DoD Uses
Office Building

Secondary DoD Uses
Fuel type

Post-Army Uses
1970-1976: District educational office for Benicia Unified School District (ref 587).

Flooring
Concrete

Disposal Information
None Listed

Activities (inside/outside)
Inside

Records Research Report Addenda Data
Building does not appear on the 1962 Building Zone List (ref 713).

Records Research Report Comments
One 1,000-gallon fuel oil tank identified in the 1957 building inventory (ref 167).

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	AST or UST?	US Army	1000	Unknown (likely steel)	Fuel oil	Unknown	Unknown	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments: Unknown if tank is an AST or UST. Unknown if tank is still present.

Furthest Stage of Environmental Investigation

NONE

COMMENTS

Unknown what happened to the 1,000 gallon fuel oil tank. No investigative activities were conducted at Bldg 46(B). There was no evidence of the suspected fuel storage tank and the existing building was remodeled. Based on the observed features and FUDS program jurisdiction, no further action was implemented for this building (ref 1063). After this report was finalized, a

PA Summary

DoD Site #

46(B)

Area: I

former Arsenal employee reported that existing building is not the original Building 46(B). The original Building 46(B) was moved and is the Benicia Yacht Club. The former Arsenal employee showed a photo of the former building and located the possible location of the fuel oil tank. Overlapping the current building footprint with the former building footprint determined that it may be possible that the fuel tank may still exist. Site requires further investigation.

RECOMMENDATIONS

Investigation into the location of the suspected UST is recommended. If UST is present, conduct a subsurface investigation is recommended to determine the presence or absence of fuel, oil, and metals in soil and groundwater (if present) from a possible release from the UST.

PA Summary

DoD Site #

47

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-140-100	BENICIA INDUSTRIES INC	1200 ADAMS STREET
0080-150-140	COMMAND POST ASSOCIATES	1060 GRANT AVENUE

Year Bldg. Built 1870 **Year Bldg. Removed** Not applicable **Site Area (SqFt)** 35053

Current Land Use Mixed Use-Lower Arsenal

OPERATIONAL HISTORY

DoD Use Type

Administrative

DoD Uses

Storehouse/Office building

Secondary DoD Uses

Fuel type

Post-Army Uses

None Listed

Flooring

Wood

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

400-gallon fuel oil tank installed in December 1929 to accompany an enterprise rotary oil burner installed in the furnace (ref 130).

Records Research Report Comments

Portions of building demolished by Benicia Industries. According to Buster Byerrum, a former Arsenal employee, a photographic laboratory was temporarily located in Building 47 prior to its final location in Building 92. The Army constructed several additions to the structure over the years. All additions have been removed by Benicia Industries, but the original structure remains.

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	AST or UST	US Army	400	Unknown (likely steel)	Fuel oil	1929	Unknown	No	<input type="checkbox"/>

Uses: Fuel Storage

Comments: Unknown if tank is an AST or UST. Unknown if tank is still present.

Furthest Stage of Environmental Investigation

NONE

PA Summary

DoD Site #

47

Area: I

COMMENTS

Unknown what happened to the 400 gallon fuel tank. There are no records to substantiate the existence of the photo laboratory in Building 47 by Mr. Byerrum.

RECOMMENDATIONS

Additional research is recommended to determine the location of the fuel tank. Based on this research, a geophysical survey should be conducted to confirm the location of the tank and then a subsurface investigation to determine the presence or absence of fuel, oil, and metals in soil and groundwater from a possible release from the suspected fuel tank.

PA Summary

DoD Site #

48

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address	
0080-140-100	BENICIA INDUSTRIES INC	1200 ADAMS STREET	
Year Bldg. Built	1911	Year Bldg. Removed	Not applicable
Current Land Use	Industrial-Waterfront		
		Site Area (SqFt)	10180

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Shop/Storage C&P

Secondary DoD Uses

Storage

Post-Army Uses

1969-1974: leased to Weldon Leather for leather processing (refs 418 and 587). 1977: a 10,000 gallon gasoline UST was installed by Benicia Industries (ref 502). Subaru rented 10,180 sq ft for auto processing 1980 appraisal document (ref 576). 1982: Maintenance Building (ref 712). 1984-1985: Auto Processing by Benicia Industries.

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Processing Shop Date to Vacate: 3/31/64 (ref 713). 1951: According to the Expansion and Rehabilitation Facilities Document, renovations included installation of a light oil dip tank and sandblast machine. 1952: Brown and Caldwell survey indicates degreasing, dipping, preserving, and painting operations. 1957: gas fired boiler was installed.

Records Research Report Comments

Reclamation and processing. Stock parts manufacturing, 1944. Still present. Drawing 6366 dated 25 April 1960 shows the location of a roto-blast equipped with dust collectors and a vapor hose, sandblast area, paint booth, and baking oven. Processing tanks identified were degreaser tanks, hot and cold tanks, paint remover tank, acid and alkaline tanks, and several rinse tanks. Also identified are a still boiler and transformer vault (ref 392) presumably for solvent purification. A hazardous materials inventory dated October 1995 identified solvents, sealers, lacquer thinners, Katz remover, and two unleaded gasoline fuel tanks (10,000 and 1,000 gallon) as materials stored and used at the auto processing storage plant (ref 502).

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	AST	US Army	0	Unknown	Solvents	Unknown	Unknown	Unknown	<input type="checkbox"/>

Uses: Degreaser Dip Tank

Comments: Unknown how many Degreaser tanks there were.

PA Summary

DoD Site #

48

Area: I

Vessel Inventory

	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
Vessel # 2	AST	US Army	0	Unknown	Hot Water	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Unknown how many Hot water tanks there were.									
Vessel # 3	AST	US Army	0	Unknown	Unknown	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Paint Remover Tank Comments:									
Vessel # 4	AST	US Army	0	Unknown	Acid	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Unknown how many acid tanks there were.									
Vessel # 5	AST	US Army	0	Unknown	Unknown	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Alkaline Tank Comments: Unknown how many acid tanks there were.									
Vessel # 6	AST	US Army	0	Unknown	Water	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Rinse Dip Tanks Comments: Unknown how many rinse tanks there are. The Records Research Report lists that there are several of these tanks.									
Vessel # 7	Vault	US Army	0	Unknown	Unknown	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Transformers Comments: Unknown what type of transformers operated in the vault.									
Vessel # 8	UST	Benicia Industries	10000	Unknown	Gasoline	1977	Unknown	Yes	<input checked="" type="checkbox"/>
Uses: Fuel Storage Comments:									
Vessel # 9	UST	Unknown	1000	Unknown	Gasoline	Unknown	Unknown	Yes	<input type="checkbox"/>
Uses: Fuel Storage Comments: It is unclear in the Records Research Report if this tank was installed after post closure.									
Vessel # 10	AST	US Army	0	Unknown	Cold Water	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Unknown how many Cold water tanks there were.									

Furthest Stage of Environmental Investigation

SI

COMMENTS

Benicia Industries, Inc. (BII), current landowner, undercoated automobiles and tested them for water leaks after 1974. A PA was completed in 1994 that identified a concrete sump and floor drain within the building. Samples were collected below the floor drain. Cis-1,2-DCE, TCE and PCE were reported in soil at a maximum concentration of 0.23 mg/kg TCE. Borings were advanced outside of the building to determine the lateral extent. Soil and groundwater samples were collected. Relatively low concentrations of cis-1,2-DCE, trans-1,2-DCE and TCE were detected in soil (max concentration = 0.05 mg/kg of cis-1,2-DCE). Groundwater concentrations were higher with a maximum concentration of 10,000 ppb TCE. Between February 1995 and February 1997, BII investigated potential contamination releases from Building 48. The investigation activities were performed to evaluate potential sources and distribution of several HVOCs detected in soil and groundwater at Building 48 during the 1994 PA. Soil and groundwater were sampled to evaluate the potential impacts of the HVOCs on continued industrial usage of the site and on future site development. All sampling results were below PRGs for industrial sites. Data suggested that the floor drain and not the former paint spray booth is the likely source of HVOCs detected. BII concluded that no additional work was needed to assess the extent of the release of organic chemicals from Building 48. Depth to groundwater

PA Summary

DoD Site #

48

Area: I

in 1995 ranged from 2.6 to 10 feet bgs (ref 1203). According to the GeoTracker Leaking Underground Fuel Tanks website, Solano County considers this site closed. Site 48 has been in use since closure and decommissioning of the former Arsenal and is considered to have provided beneficial use to subsequent owners. Pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, DERP-FUDS Program Manual, dated 30 September 1999, beneficially used structures are ineligible for investigation under the FUDS Program.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

49

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-140-100	BENICIA INDUSTRIES INC	1200 ADAMS STREET			
Year Bldg. Built	1862 with addition in	Year Bldg. Removed	1970s	Site Area (SqFt)	25691
Current Land Use	Industrial-Waterfront				

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Machine Shop/Fire Control and Optical Shop

Secondary DoD Uses

Fuel type, Fire residues

Post-Army Uses

Office (general contractor) for Sollitt Construction Co.

Flooring

Concrete

Disposal Information

According to Mr. Erck, waste from the NIKE Missile component parts were put into 55 gallon drums and taken to the salvage yard (Area M).

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Building removed in the 1970s. According to a 1944 historical drawing, there were four underground cisterns, two were to be filled. Also identified in the drawing was a packing and storage room, paint room, dust trap room, new cleaning room, and a director room. Project Additions drawing, dated 19 June 1944, showed a paint spray booth and the machinery room. Records research indicated additions were made to the building constructed on compacted fill over existing grade. These drawings also indicate several deep pits that slope towards the drain (ref 385). The Expansion and Rehabilitation document dated 26 April 1951 showed that a renovation request was made to construct a hood and vent over the de-cementing table. Venting was required to improve plating and remove acid fumes. The renovation also included a hood and blower in the grinding and polishing room to remove fumes from heated wax and pitch and vapors from degreasing. In 1952, a request was submitted to construct a concrete operations area (NO 42) north of Building 49. According to the 1952 request, the area that was being used was not suitable for the draining of gasoline from the vehicles prior to processing causing a fire hazard and the material drained to be wasted. In 1955, the building was used to depot, maintenance, and rebuilding of NIKE guided missile propellant systems and internal guidance systems. In 1959, a gas fired boiler was installed. In 1970s, the building was demolished by Benicia Industries, the foundation remains. In 1973, the building was used as a contractors office by Sollitt Construction (ref 418).

Records Research Report Comments

Boiler and air humidity control on the top floor. Performed electroplating, sandblasting, acid baths. The historical summary for 1 July to 31 December 1950 indicates grinding and polishing of optical glass, binocular rebuilds, glass cement and de-cementing, coating operations and processing, and repaired complex instruments used in this building. Carbon tetrachloride was used to clean the brushes for radar components. Filters were cleaned by submerging them into gasoline or other solvents. According to former Arsenal Employee, Lewis Erck, staff would sand, buff, and ultraviolet coat the optical materials. Silver electroplating was applied following an acid bath on aiming circles, rangefinders, and various tank parts. Flame thrower maintenance required flushing the barrel with gasoline or solvent. Mr. Erck worked on the component parts of NIKE vans. The parts were moved to

PA Summary

DoD Site #

49

Area: I

a paint spray booth and then the waste drained into 55 gallon drums. Preliminary hazardous waste assessment conducted by BCL Associates showed elevated lead.

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
Vessel # 1	Cistern	US Army	0	Unknown	Water	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Emergency storage for fire Comments: Two Cisterns were targeted to be destroyed and filled and two were to remain in service.									
Vessel # 2	Cistern	US Army	0	Unknown	Water	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Emergency storage for fire Comments: Two Cisterns were targeted to be destroyed and filled and two were to remain in service.									
Vessel # 3	Cistern	US Army	0	Unknown	Water	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Emergency storage for fire Comments: Two Cisterns were targeted to be destroyed and filled and two were to remain in service.									
Vessel # 4	Cistern	US Army	0	Unknown	Water	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Emergency storage for fire Comments: Two Cisterns were targeted to be destroyed and filled and two were to remain in service.									
Vessel # 5	AST	US Army	4	Unknown	Fuel	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Flame Thrower Tank Comments: 4 gallon tank (ref 4)									

Furthest Stage of Environmental Investigation

SI

COMMENTS

In 1997, Benicia Industries, Inc. (BII) conducted a preliminary hazardous waste assessment. The assessment was conducted by BCL Associates and reported elevated levels of lead in shallow soils at the former Building 49 site and an adjacent hillside property (maximum concentration of 1,100 mg/kg). In a more extensive investigation in 1988, BII collected soil samples for total lead analysis. Additional sampling in the vicinity showed that the high lead concentrations were not characteristic of the fill material. The results were reviewed by the Department of Health Services (DHS) and agreed that the soils contained total lead below the Total Threshold Limit Concentrations and soluble lead concentrations were below the Soluble Threshold Limit Concentration. DHS recommended no further action and stated that industrial activities could take place at the Site in accordance with local zoning restrictions for maritime industrial use. Soluble lead concentrations were also evaluated. Between February 1995 and February 1997, BII investigated potential contamination releases from former Building 49. Based on the 1997 investigation, the paint spray booth area at former Building 49 does not appear to be an area of HVOC release. No odors or HVOCs were detected in PID field measurements or in lab analyses. Furthermore, no evidence of a fuel oil tank or a release of petroleum hydrocarbons from an UST was found in a test pit excavated in this area. BII concluded that no additional work was needed to assess the extent of the release of organic chemicals (ref 1203). It is unknown if the regulatory agencies agreed with the recommendations in this report.

This site has been in use since closure and decommissioning of the former Arsenal and is considered to have provided beneficial use to subsequent owners. Pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, DERP-FUDS Program Manual, dated 30 September 1999, beneficially used structures are ineligible for investigation under the FUDS Program.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

51

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-150-100	WELSH RALPH T & ANN	932 GRANT STREET

Year Bldg. Built	1909	Year Bldg. Removed	Not applicable	Site Area (SqFt)	7192
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Current Land Use: Mixed Use-Lower Arsenal

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Stable/Maintenance

Secondary DoD Uses

Unknown

Post-Army Uses

1968-1977: Office and storage of electrical supplies for Contra Costa Electric, Inc.

Flooring

Unknown

Disposal Information

Unknown

Activities (inside/outside)

Inside. Some storage was outside.

Records Research Report Addenda Data

Underground services cleared for construction in 1909. The building was located just north of Building 98. Following removal of mules in the 1940's, several 55-gallon drums filled with fuel for maintenance operations in the area were stored directly south of Building 51. According to Drawing 5091, dated 1 October 1951 (ref 288), plans were made to enclose a steam cleaning shed just behind Building 51. In this drawing, Building 51 was identified as a shop that included a hydraulic lift, a catch basin, an existing sump, and a drain trap. According to a 1957 inventory of buildings, the structure was being used by the Signal Corps for fork truck repair.

Records Research Report Comments

Record research indicates building was demolished, date not listed.

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	ASTs	US Army	55	Steel	Unknown Fuel	Unknown	Unknown	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments: Following the removal of the mules from the stable in the 1940's, several 55-gallon drums filled with fuel for maintenance operations in the area directly south of Building 51.

Furthest Stage of Environmental Investigation

NONE

PA Summary

DoD Site #

51

Area: I

COMMENTS

Unknown where fuel drums were stored and the type of maintenance activities occurred in the former building.

RECOMMENDATIONS

A subsurface investigation is recommended to determine the presence or absence of fuels, semi-volatiles, metals and oil in soil and fuels, oils and solvents in groundwater (if present) from a possible release from this former drum storage area and former maintenance activities.

PA Summary

DoD Site #

52

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-150-160	KOERNER NORMAN D & B L	960 GRANT STREET			
Year Bldg. Built	1920	Year Bldg. Removed	Not applicable	Site Area (SqFt)	4819
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Administrative

DoD Uses

Storehouse/Office/Photographic Laboratory

Secondary DoD Uses

Storage

Post-Army Uses

Manufacturing & distribution of candles, gift line and related projects for Justwycke Candle Co. Inc. Leased to Jim Dunlop in 1972 for manufacture of musical instrument parts (ref 587).

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Drawing 4152 dated 13 February 1946, a photographic laboratory was proposed for the west end of Building 52. The drawing identifies the proposed locations of the printing room, film developing room, and a chemical room with a 3 inch drain in the floor (ref 389). Records did not indicate whether the photographic laboratory was installed in Building 52. A 1961 Facility Data Sheet showed the facility was originally a storehouse and was being used as an office.

Records Research Report Comments

A one ton Otis elevator was installed in the building (ref 196).

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

There are no records to substantiate the presence of any photographic lab installed in this building. There are no records indicating any potential environmental concerns related to DoD activities at this building.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

53

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-280-050	HISTORIC ARSENAL PARK LTD	985 LINCOLN ROAD
Year Bldg. Built	Year Bldg. Removed	Site Area (SqFt)
1942; Circa 1940s	Not applicable	2250
Current Land Use Mixed Use-Lower Arsenal		

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Dynamometer Shop/Engine Testing/Fuel storage

Secondary DoD Uses

Fuel Storage Facilities

Post-Army Uses

Machine shop for Roberto Flores from 1969 to 1977. The Building currently being used as a machine shop.

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Inside and outside

Records Research Report Addenda Data

Plans were drawn on 9 April 1942 for the fuel storage installation at the Dynamometer Shop.

Records Research Report Comments

Former storage of oil, paints, varnishes, and alcohol. A drawing submitted 17 January 1951 details the existing underground gasoline storage facilities. There was a tank with base dimensions of 45 inches by 143 inches with a gas line to the two dynameters in the building (ref 381). The UST is outside the east end of the building.

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
3	UST	US Army	4000	Steel	Gasoline	Unknown	2002	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments: Location of this UST corresponds to results from the geophysical survey and historical records reviewed in the RRR (BC Ref 1077). Removed in 2002 (BC Ref 1125).

Furthest Stage of Environmental Investigation

RIFS

COMMENTS

In March 1999, a geophysical survey was conducted to assess the presence of a suspected 1,000-gal diesel UST and a 10,000-gal gasoline UST and associated piping, reportedly installed as part of the Bldg 53 fueling system beneath the SW corner of Bldg

PA Summary

DoD Site #

53

Area: I

56A. Geophysical survey was inconclusive (ref 1207). Additionally, in March 1999, the USACE excavated two test pits and found a 4,000-gal UST and associated piping tracing from the UST to the western wall of Bldg 53, where the piping ended. It is unknown if these pipes are connected to another set of USTs beneath Bldg 56A or once directly connected to the Building 154 tank system (ref 1060). Presence of gasoline and diesel fuel confirmed in soil and groundwater. Lead confirmed in soil above residential PRG concentrations but less than industrial PRGs (ref 1060). Between March and April 2002, the USACE removed the 4,000-gallon UST, associated product piping. The UST was removed and soil samples were collected beneath the former tank and product piping. Diesel fuel, gasoline, motor oil, lead, ethylbenzene, toluene, and xylenes were detected in soil. RBSLs for soil were exceeded. The extent of TPH and lead in soil and groundwater was not defined. M,p-xylenes, gasoline, diesel fuel, JP-5, and lead were detected in groundwater. There is no historical record indicating that JP-5 was ever used or stored at the Arsenal (ref 1125).

RECOMMENDATIONS

The RWQCB requested further delineation of fuels and lead in soil and groundwater based on the fuels and associated analytes reported in soil and groundwater from a release from the former UST.

PA Summary

DoD Site #

54

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address	
0080-130-020	BENICIA CITY		
Year Bldg. Built	1939	Year Bldg. Removed	Post 1977
Current Land Use	Industrial-Waterfront		
		Site Area (SqFt)	1647

OPERATIONAL HISTORY

DoD Use Type

Utilities

DoD Uses

Pump House-Water/Store House

Secondary DoD Uses

Fuel type

Post-Army Uses

Storage of marine equipment for Marine Service, Inc from 1969 to 1977 (refs 587 and 702).

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Inside and Outside

Records Research Report Addenda Data

Drawing 2757 dated 15 January 1944 (ref 635) details the Army Point pumping plant (presumed to be Building 54) and identifies a 550-gallon gasoline tank that fueled four pumps equipped with gasoline engines. Early drawings also identifies this area as a detonation storehouse and a proving ground for gunpowder (in use at the turn of the century).

Records Research Report Comments

Two pumps were installed in Building 54 that have a capacity of 3,000 gpm each. Listing shows these pumps were diesel. There were a total of 7 pumps identified between Building 64 and 54, four of which were diesel. The other two appear to belong to Building 64 with a total capacity of 8,750 gpm. (ref 718)

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	AST	US Army	550	Unknown (likely steel)	Gasoline	Pre 1944	Unknown	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments: Fueled four pumps equipped with gasoline engines. Tank stand remains. AST removed.

Furthest Stage of Environmental Investigation

SI

COMMENTS

Records Research was unclear on where and how many tanks/pumps were located at this building and between Buildings 54 and

PA Summary

DoD Site #

54

Area: I

64. The site was identified by the USACE for investigation because of the possible impacts any leaks from the AST. During the planning process, a field visit of the site determined that the tank was an AST. The cradles for the AST still exist. In June 2000, soil samples were collected from two hand auger borings between the cradles. No groundwater was encountered. During the subsurface investigation, no odors, staining, PID readings or other field investigations of fuel leakage from the former AST were observed. Diesel fuel and motor oil were detected in surface soil samples (maximum concentration of 32 mg/kg and 300 mg/kg, respectively). No further action under the FUDS program is recommended (ref 1063). The Records Research Report indicated that early drawings also identifies this area as a detonation storehouse and a proving ground for gunpowder (in use at the turn of the century). This area has been highly developed and the likelihood of any explosives is very low.

RECOMMENDATIONS

No investigation is recommended for the possible explosives.

PA Summary

DoD Site #

55

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET
Year Bldg. Built	1876	Year Bldg. Removed
		Not applicable
Current Land Use	Mixed Use-Lower Arsenal	
	Site Area (SqFt)	8925

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Blacksmith Shop/Machine/Welding Shops

Secondary DoD Uses

Machine Shop/Welding Shop

Post-Army Uses

Retail Formica counter top fabricators. 1971-75: Laminations Unlimited for Formica counter top lamination. Currently used as a machine and welding shop for Unico, Inc.

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

SERVICE SHOPS: Blacksmith: gas forge (2), 51 kW furnace (2), 200 ton hydraulic press, 285 ton hydraulic press, 3 quench tanks, metal shop and welding. Records indicate that Building 55 suffered a great deal of structural damage from a fire in 1883. In the late 1940's and early 1950's, a structural addition of Building 55A was identified which housed a Machine shop and a Welding Shop. Drawing 5354, dated 1952, identifies a sprinkler system and the Welding Shop. Drawing 5353 shows a tunnel below the Welding shop and adjacent to the storeroom.

Records Research Report Comments

The tunnel systems below Building 55 runs the length of the building and was slated for a sprinkler system. Records do not give a clear indication of the tunnels purpose.

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	AST or UST?	US Army	0	Unknown	Water	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
Uses: Quench Tank Comments: Pre-1957 based on Reference 714, Equipment list for new facility.									
2	AST or UST?	US Army	0	Unknown	Water	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
Uses: Quench Tank Comments: Pre-1957 based on Reference 714, Equipment list for new facility.									

PA Summary

DoD Site #

55

Area: I

Vessel Inventory

	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
Vessel # 3	AST or UST?	US Army	0	Unknown	Water	Pre-1957	Unknown	Unknown	<input type="checkbox"/>

Uses: Quench Tank

Comments: Pre-1957 based on Reference 714, Equipment list for new facility.

Furthest Stage of Environmental Investigation

SI

COMMENTS

Since the Records Research Report, the use of the tunnel beneath Building 55 is access for utilities. Building suffered structural damage from fire. Building 55 is part of the 50 Series Complex. In 1999, USACE detected two magnetic anomalies (designated "D" & "E") during a geophysical survey in the breezeway between Bldg 55, Bldg 56C, and Bldg 56A. Anomaly "D" is suspected to be a concrete slab or possible cistern while "E" is suspected to be a large utility or a small UST. Two hand auger borings were added to the sampling program to investigate these anomalies (ref 1207). Sampling for metals and fuels suspected associated with 2 forges planned. Additional COPCs include Cr(VI), Hg, PCBs, & PAHs (ref 1099). Analytical results from soil samples collected beneath Building 55 indicated releases to the subsurface of lead, solvents, and fuels. The source of the solvents (in the form of TCE) and fuels (in the form of PAHs) in soil is not known. These detections were not expected based on usage. Groundwater south of Building 55 is impacted with fuels and solvents. The source of fuels in groundwater may be related to the fuels reported in groundwater north of the 50 Series Complex (ref 1207).

RECOMMENDATIONS

Additional investigation is required at this site based on the 1999 investigation. Additional sampling is recommended to determine the lateral extent of fuels and solvents in groundwater downgradient of this building (and complex).

PA Summary

DoD Site #

55A

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET			
Year Bldg. Built	1940s - 1950s	Year Bldg. Removed	Not applicable	Site Area (SqFt)	3277
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Welding Shop/Machine Shop

Secondary DoD Uses

None Listed

Post-Army Uses

Unico machine shop and storage

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

None Listed

Records Research Report Comments

This was an addition to Building 55 completed in the late 40s or early 50s.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

There are no records indicating any potential environmental concerns related to DoD activities at this building.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

56

Area: I

NDAI
 FAR
 IRR
 Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET
Year Bldg. Built	1884	Year Bldg. Removed
		Not applicable
Current Land Use	Mixed Use-Lower Arsenal	
	Site Area (SqFt)	36140

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Leather & Canvas Shop/Welding Shop

Secondary DoD Uses

Unknown

Post-Army Uses

Warehousing, automotive parts and rebuilt transmissions for Standard Transmissions in 1973. Service and repair of industrial machinery for Unico Industrial Service and Engineering Co from 1971 to 1977 (ref 702). Exxon Co. in 1977 for storage. Currently a wallpaper manufacturer occupies the 2nd floor.

Flooring

Concrete and Wood

Disposal Information

Unknown

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Leather and Canvas 1962 vacate date (ref 613). Leased 41,280 sq ft to Unico Industrial Service. A gas boiler was installed in the facility in 1945. During the latter half of 1950, four new firing pits were put into operation. In June 1951, Building 56 housed the Welding Shop, the Canvas and Leather Goods Shop, and the small arms rebuild program. In 1951, the Machine Tool Rebuild division was established, along with the conversion of the small arms buffing room to a motor rebuild room. Brown and Caldwell identified in 1952, operations in Building 56 included painting only and indicated that there were sewer system deficiencies in the area of Buildings 56, 57, 89, and 161 which frequently needed rodding to keep the sewage lines open. These deficiencies were likely due to the settling of the former marshland in which these lines were installed. Surface Preparation Room: Sandblast Barrel Tumblers (2) (ref 714).
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Records Research Report Comments

Former welding and machine shop. Housed Rubber Mold Dept. on 2nd floor. In 1907, a total of 1,927 rounds of fixed ammunition was disassembled and reloaded in this building. Boilers 1 and 2 used heavy #5 oil that was delivered hot. Gas boilers installed. According to instructions issued by the Rock Island Arsenal in 1910, the proper solution for removing metallic residue from the bores of small arms consisted of one ounce of ammonium per sulfate, 200 grains of ammonium carbonate, 6 ounces of ammonia (28 percent), and 4 ounces of water. In 1951 a hoist and monorail in the Parkerizing room for dipping rifles into oil dip tanks, renovation of the Leather shop boiler and oil tank on the oil tank burner occurred. In December 1960, rusted pipes were replaced with heavy-gauge pipe, coated with Gila coat for protection against acid fumes from the exhaust system, which had caused the deterioration.

PA Summary

DoD Site #

56

Area: I

ENVIRONMENTAL SUMMARY

Vessel Inventory

	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post- Army	Installed Post-Army
Vessel # 1	UST	US Army	0	Concrete	Caustics	Unknown	Unknown	Unknown	<input type="checkbox"/>

Uses: Dip Tank

Comments: Tank used for parkerizing. Tank still exists. Emptied by current landowner (at the time contained caustics).

Vessel # 2	ASTs	US Army	0	Unknown	Oil	Pre-1951	Unknown	Unknown	<input type="checkbox"/>
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Uses: Dip Tanks

Comments: Unknown how many dip tanks were located in Building 56. Pre-1951 based on Reference 197 Memo on Expansion and Rehabilitation of Building 56.

Furthest Stage of Environmental Investigation

SI

COMMENTS

This building is part of the 50 Series Complex. Preservation of small arms was performed in this building for decades. In 1999, a preliminary site investigation was conducted by USACE. Soil and groundwater samples were collected within and around the building. In particular in areas at the suspected parkerizing/oakite dip tank (no solvents used in the parkerizing or preserving process). Lead was detected in the soil. TCE, acetone, chloroform, and cis-1,2-DCE were the predominant VOC compounds detected in soil. Motor oil was found above the MDL in soil. PAHs, phenanthrene and pyrene, were detected in soil. VOCs were also detected in groundwater. (ref 1074). The presence of VOCs in soil and groundwater may be associated with a post-Army release.

RECOMMENDATIONS

Additional investigation is recommended to determine the lateral extent of fuels and solvents in groundwater downgradient of the building (and complex).

PA Summary

DoD Site #

56A

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET
Year Bldg. Built	Year Bldg. Removed	Site Area (SqFt)
1944	Not applicable	51770
Current Land Use		
Mixed Use-Lower Arsenal		

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Small Arms Shop/Leather Canvas Shop

Secondary DoD Uses

None Listed

Post-Army Uses

Unico Industrial Service and Engineering Co. 1972-1975 for the servicing and repair of industrial machinery (ref 587). Metropolitan Van and Storage in 1975 for the storage of household goods (ref 587). Exxon Co. in 1977 for storage (ref 702). Currently houses a beauty shop and several artists studios. Portions of the building are used for storage.

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Leather and Canvas shop vacated in 1962, Small Arms section vacated in 1964 (ref 713). Small Arms section included a parkerizing room (Building 57) and parkerizing tanks. Building 56A was added to the facility in 1944 as the Small Arms shop. Record research was not clear on how many parkerizing tanks were inside building. According to a progress of operations document for 1952 a continuous degreaser was installed for the small arms branch presumably in Building 56A (a continuous degreaser was also associated with Building 57). Drawing 5352 dated 5 August 1952 identifies two test fire rooms in the basement on the southern side. Also identified are a firing room, ammunition storage room, and the boiler room (ref 345). Drawing 1479 showed the plans for fuel storage installation - one 10,000-gallon high octane gasoline tank and one 1,000-gallon diesel oil tank located west of Building 53 (ref 390) (which is now beneath Building 56A). Surface Preparation Room: Degreaser 10'x39'x7', Degreaser Still. Parkerizing Room: Parker Tanks 4'x8'x4' (8), Parker Tank 4'x6'x4' (ref 714).

Records Research Report Comments

Basement and first floor were small arms repair, and the third floor was leather and canvas shop. According to a Brown and Caldwell 1952 Survey, operations included degreasing, dipping and preserving (ref 405).

ENVIRONMENTAL SUMMARY

Vessel Inventory

Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army

PA Summary

DoD Site #

56A

Area: I

Vessel Inventory

	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
Vessel # 1	ASTs	US Army	0	Unknown	Unknown	Unknown	Unknown	Unknown	<input type="checkbox"/>
	Uses: Dip Tanks								
	Comments: Unknown how many dip tanks were located in Building 56A.								
Vessel # 2	UST	US Army	1000	Unknown	Diesel	Unknown	Pre 1944	No	<input type="checkbox"/>
	Uses: Fuel Storage								
	Comments: Presumed location beneath the southeast corner of Building 56A. Could not confirm location in 1999 investigation (BC Ref BC 1207). If installed, likely removed prior to construction of Building 56A in 1944.								
Vessel # 3	UST	US Army	10000	Unknown	High Octane Gasoline Tank	Unknown	Pre 1944	No	<input type="checkbox"/>
	Uses: Fuel Storage								
	Comments: Presumed location beneath the southeast corner of Building 56A. Could not confirm location in 1999 investigation (BC Ref BC 1207). If installed, likely removed prior to construction of Building 56A in 1944.								
Vessel # 4	AST	US Army	0	Unknown	Caustics	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
	Uses: Parker Tank								
	Comments: Pre-1957 based on Reference 714, Equipment list for new facility.								
Vessel # 5	AST	US Army	0	Unknown	Caustics	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
	Uses: Parker Tank								
	Comments: Pre-1957 based on Reference 714, Equipment list for new facility.								
Vessel # 6	AST	US Army	0	Unknown	Caustics	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
	Uses: Parker Tank								
	Comments: Pre-1957 based on Reference 714, Equipment list for new facility.								
Vessel # 7	AST	US Army	0	Unknown	Caustics	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
	Uses: Parker Tank								
	Comments: Pre-1957 based on Reference 714, Equipment list for new facility.								
Vessel # 8	AST	US Army	0	Unknown	Caustics	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
	Uses: Parker Tank								
	Comments: Pre-1957 based on Reference 714, Equipment list for new facility.								
Vessel # 9	AST	US Army	0	Unknown	Caustics	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
	Uses: Parker Tank								
	Comments: Pre-1957 based on Reference 714, Equipment list for new facility.								
Vessel # 10	AST	US Army	0	Unknown	Caustics	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
	Uses: Parker Tank								
	Comments: Pre-1957 based on Reference 714, Equipment list for new facility.								
Vessel # 11	AST	US Army	0	Unknown	Caustics	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
	Uses: Parker Tank								
	Comments: Pre-1957 based on Reference 714, Equipment list for new facility.								
Vessel # 12	AST	US Army	0	Unknown	Caustics	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
	Uses: Parker Tank								
	Comments: Pre-1957 based on Reference 714, Equipment list for new facility.								

Furtherst Stage of Environmental Investigation

SI

PA Summary

DoD Site #

56A

Area: I

COMMENTS

In 1999, USACE conducted a geophysical survey to assess the presence of a suspected 1,000-gal diesel UST and a 10,000-gal gasoline UST and associated piping, reportedly installed as part of the Bldg 53 fueling system beneath the southwest corner of Building 56A. Geophysical survey was inconclusive; two borings were placed on east and west sides of Building 56A. There appears to be no release of PCBs, hydrocarbons, or metals from former equipment in the transformer room (Building 56A). No further action under FUDS is recommended to address the Building 56A transformer room (ref 1207). The equipment room of Building 56A requires further investigation. Solvents and fuel were identified in groundwater along the south side of the building (in the downgradient direction of the 50 Series Complex and the building).

RECOMMENDATIONS

Additional investigation is recommended to determine the lateral extent of fuels and solvents in groundwater downgradient of the building (and complex).

PA Summary

DoD Site #

56B

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET			
Year Bldg. Built	Late 1940s	Year Bldg. Removed	Not applicable	Site Area (SqFt)	4576
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Welding Shop and possible foundry

Secondary DoD Uses

None Listed

Post-Army Uses

Bldg 56B leased to George McKeever for glass product manufacturing from 1965-75 (ref 587). In 1999, the tenant did woodworking. The building contained piles of scrap wood used to cut out plaques and other types of decorative shapes. The building contained two areas for painting. Currently, the building is vacant.

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

None Listed

Records Research Report Comments

Records Research does not specifically mention this building. Parkerizing activities may have been performed in this building. The building was a welding shop until the deactivation of the Arsenal in 1964.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

SI

COMMENTS

This building is part of the 50 Series Complex. In 1999, USACE conducted a soil investigation. Three borings were drilled through the concrete floor. Soil samples were collected from each boring to a maximum depth of 5 feet. Soil samples were analyzed for metals, fuels and solvents. No significant impacts to soil were reported. (ref 1207).

RECOMMENDATIONS

No further action under FUDS is recommended for this building.

PA Summary

DoD Site #

56C

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET			
Year Bldg. Built	Late 1800s	Year Bldg. Removed	Not applicable	Site Area (SqFt)	977
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Storehouses and Warehouses

DoD Uses

Storage

Secondary DoD Uses

None Listed

Post-Army Uses

Storage

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

None Listed

Records Research Report Comments

Records Research does not specifically mention this building.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

This building has been always associated with storage. It is also a pass through from Building 55 to Building 56. In 1999, USACE researched this building because it is part of the 50 Series Complex and determined there were no records indicating any potential environmental concerns related to DoD activities at this site.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

57

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET
Year Bldg. Built	1877	Year Bldg. Removed
		Not applicable
Current Land Use	Mixed Use-Lower Arsenal	
	Site Area (SqFt)	11550

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Small Arms Shop, Firing Range

Secondary DoD Uses

Firing Range

Post-Army Uses

Currently houses artist studios

Flooring

Wood

Disposal Information

According to Mr. Byerrum, chemicals would go down a drain in to two large cisterns and when the cisterns became full, the contents was pumped directly into the Carquinez Strait. Mr. Byerrum also stated, Industrial Waste was pumped into a swamp west of the building.

Activities (inside/outside)

Inside

Records Research Report Addenda Data

SMALL ARMS: Teardown Room: degreaser (3'x5'), degreaser still, five gun capacity electric barrel cleaner (2), Dip Tank (2) (ref 714). No records prior to 1945. Drawing 2994A, dated 26 September 1945, identifies the cleaning room and also identifies the locations of the cleaning solution vats (ref 634). In 1952, Brown and Caldwell reports the only hazardous waste-producing operation in Building 57 at this time was degreasing (ref 405).

Records Research Report Comments

Former carpenter shop, three (3) test firing ranges in basement. A 1952 report indicated that there were sewer system deficiencies in the area of Buildings 56, 57, 89, and 161 which frequently needed rodding to keep the sewage lines open. These deficiencies were likely due to the settling of the former marshland in which these lines were installed. According to Mr. Byerrum, a former Arsenal employee, the degreasing process included TCE heated by steam coils until the TCE would vaporize, the small arms were hung over the TCE tanks and the chemical vapors would degrease them. The cold water coils cooled the boiling chemical to prevent the bath from spilling over the sides. He said that it would often boil over the sides and spill down the drain (ref 566).

In earlier years before the installation of the degreaser when acids and caustics were used for degreasing of small arms, the drains emptied into two large cisterns located outside the building (cistern locations unknown). When the cisterns became full, the contents were dumped directly into the Carquinez Strait or dumped daily into the swamp west of the building (Byerrum, 1997) prior to filling of the area with artificial fill around 1920. Based on the processes occurring in the industrial area prior to 1920, it appears that any used material dumped into the former marshland would have been acids and possibly oils. It is not clear where the contents of the solvent-based materials in the degreaser tanks or other used materials were disposed of; however, it is presumed to be storm drains and the sanitary sewer system.

PA Summary

DoD Site #

57

Area: I

ENVIRONMENTAL SUMMARY

Vessel Inventory

	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
Vessel # 1	Cistern	US Army	0	Unknown	Water (primary)	Unknown	Unknown	No	<input type="checkbox"/>
Uses: Emergency storage for fire. Possible disposal area for spent solvents Comments: Degreasing solution was drained into large cisterns, located underground which were emptied into the Carquinez Strait when full. Could not find in 1999 geophysical survey (BC Ref 1207).									
Vessel # 2	Cistern	US Army	0	Unknown	Water (primary)	Unknown	Unknown	No	<input type="checkbox"/>
Uses: Emergency storage for fire. Possible disposal area for spent solvents Comments: Degreasing solution was drained into large cisterns, located underground which were emptied into the Carquinez Strait when full. Could not find in 1999 geophysical survey (BC Ref 1207).									
Vessel # 3	AST	US Army	0	Unknown	Solvents	Unknown	Unknown	Unknown	<input type="checkbox"/>
Uses: Degreaser Dip Tank Comments: Tank removed									
Vessel # 4	AST	US Army	0	Unknown	Unknown	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Reference 714 lists 2 dip tanks at Building 57.									
Vessel # 5	AST	US Army	0	Unknown	Unknown	Pre-1957	Unknown	Unknown	<input type="checkbox"/>
Uses: Dip Tank Comments: Reference 714 lists 2 dip tanks at Building 57.									

Furthest Stage of Environmental Investigation

SI

COMMENTS

This building is part of the 50 Series Complex. The main features of this building include a degreaser in Building 57, and three firing ranges in the basement of Building 57. Samples were collected from the target material in the firing ranges. The samples contained elevated concentrations of lead, copper, and antimony. Recommendations from the 1999 investigation included additional investigation in regards to the solvents found in the soil and water and removal and offsite disposal of firing range target material from the basement of Bldg 57 (ref 1207). The Records Research information also indicated there were sewer system deficiencies.

RECOMMENDATIONS

Additional investigation is recommended to determine the lateral extent of fuels and solvents in groundwater downgradient of the building (and complex).

PA Summary

DoD Site #

57A

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address	
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET	
Year Bldg. Built	Late 1940s	Year Bldg. Removed	Not applicable
Site Area (SqFt)	4123		
Current Land Use	Mixed Use-Lower Arsenal		

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Small Arms Shop

Secondary DoD Uses

Parkerizing Room

Post-Army Uses

Warehousing, automotive parts and rebuild transmissions for Standard Transmissions (North American Wieblpfeltzer, Inc.) 1973.

Flooring

Concrete

Disposal Information

None listed

Activities (inside/outside)

Inside and outside

Records Research Report Addenda Data

Soil samples taken during the 1994 investigation (by current landowner) found TCE in soil at 2 feet and additional contaminants were identified in deeper samples.

Records Research Report Comments

Building 57 was the former "Parkerizing Room".

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date	Date	Post-Army	Installed Post-Army
						Installed	Removed		
1	UST	US Army	0	Concrete	Acids	Late 1940s	Present	Yes	<input type="checkbox"/>

Uses: Dip Tank

Comments: Vat exists but filled with gravel and topped to grade with concrete. A previous tenant in the 1970s used the vat to dispose of transmission parts (FA/BC Ref 1207).

Furthest Stage of Environmental Investigation

SI

COMMENTS

This building is part of the 50 Series Complex. 1994 sampling found TCE soil contamination in the area of the parkerizing vat in Building 57A. In 1999, the USACE conducted geophysical surveys to determine if a U-shaped vat still exists and to determine

PA Summary

DoD Site #

57A

Area: I

where a standpipe at the south end of Bldg 57A leads. Geophysical results do not indicate the presence of any other dip tanks within Bldg 57A. Visual evidence of the U-shaped vat was evident at the ground surface. Lateral piping from the standpipe was not detected. It is likely that the standpipe was placed inside the U-shaped vat before it was filled with gravel. In 1999, further investigation by USACE in the area of the parkerizing vat confirmed VOCs in soil. A grab water sample was collected from a standpipe within the parkerizing vat. Numerous VOCs were reported in the water sample. The landowner later removed the standpipe. (ref 1207) The parkerizing process does not include the use of solvents. The vat was filled with gravel (date unknown). In 2000, the current landowner covered the gravel to grade with concrete and removed the standpipe.

Building 57A has been in use since closure and decommissioning of the former Arsenal and is considered to have provided beneficial use to subsequent owners. Pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, DERP-FUDS Program Manual, dated 30 September 1999, beneficially used structures are ineligible for investigation under the FUDS Program.

RECOMMENDATIONS

No further DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

57B

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET			
Year Bldg. Built	Late 1800s	Year Bldg. Removed	Not applicable	Site Area (SqFt)	1197
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Small Arms Shop

Secondary DoD Uses

None Listed

Post-Army Uses

None Listed

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

None Listed

Records Research Report Comments

Records Research does not specifically mention this building.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

It is also a pass through from Building 56 to Building 57. In 1999, investigation activities were conducted in the adjacent Building 57A, where the primary activities were taking place. No investigation was conducted in Building 57B because there were no records indicating any potential environmental concerns related to DoD activities at this site.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

57C

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET			
Year Bldg. Built	Post 1964	Year Bldg. Removed	Not applicable	Site Area (SqFt)	725
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Storehouses and Warehouses

DoD Uses

Storage

Secondary DoD Uses

None

Post-Army Uses

Storage

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Unknown

Records Research Report Addenda Data

None

Records Research Report Comments

Records Research does not specifically mention this building.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

This building has been always associated with storage. In 1999, USACE researched this building because it is part of the 50 Series Complex and determined there were no records indicating any potential environmental concerns related to DoD activities at this site.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

58(A)

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address	
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET	
Year Bldg. Built	1900s	Year Bldg. Removed	1932-1944
		Site Area (SqFt)	2341
Current Land Use	Mixed Use-Lower Arsenal		

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Small Arms Repair and Retinning/Boiler Room

Secondary DoD Uses

None Listed

Post-Army Uses

None Listed

Flooring

Unknown

Disposal Information

Unknown

Activities (inside/outside)

Inside

Records Research Report Addenda Data

In the early 1900's, Building 58(A) served as a facility for loading projectiles with explosive powder. The original boiler room was presumably was removed at about the time Building 56A was constructed in 1944. A letter to the Commanding Officer at the Arsenal, from the Inspector General, dated April 3, 1908 discussed the dust from the ramming of Explosive D into projectiles in the shop boiler room. The dust was described as "very disagreeable and must prove injurious to the energy of employees inhaling it for a long period" (ref 206). Jim Milburn recalled this building used as a boiler room during his tenure.

Records Research Report Comments

Removed by DoD. Building also used as a tinning plant and small arms repair. Over 1,100 armor-piercing shells were loaded, as were nearly 2,000 pounds of D.P Shells. Building shows up on a 1932 Map (ref 651).

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	AST or UST?	US Army	0	Unknown (likely steel)	Fuel oil	1900s	Pre 1944	No	<input type="checkbox"/>

Uses: Fuel Storage

Comments: This tank was not listed in the Records Research Report. However, boiler houses required a fuel source. Based on other boiler houses during this time period, it was likely that a fuel tank was located in the area and may be the same one for B65(A).

Furthest Stage of Environmental Investigation

SI

PA Summary

DoD Site #

58(A)

Area: I

COMMENTS

Building 56A was built over the former Building 58(A). USACE conducted a geophysical survey in March 1999 to evaluate the thickness of Building 56A concrete slab and to plan for sampling activities in order to avoid underground piping and utilities. Underground utilities were not identified and the thickness of the slab could not be determined. This survey did not identify any features that would indicate the presence of former Building 58(A) or any associated UST for the boiler house (ref 1207). In 1999, USACE collected soil beneath the concrete floor of Building 56A in the area of the former Building 58(A). Hydrocarbons were reported in the soil samples. The source of the contamination could not be totally attributed to former Building 58(A) because an known source of TPH approximately 50 feet away at Building 154, a former UST site. Depth to groundwater is less than 5 feet.

RECOMMENDATIONS

Recommendations were made to conduct an additional soil assessment to determine the lateral and vertical extent of TPH, lead, and PAHs at former Building 58(A) (ref 1207). Additionally, an investigation is recommended to further delineate the presence of fuels and solvents in groundwater dowgradient from this former building (and existing complex).

PA Summary

DoD Site #

58(B)

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)

Owner Name

Site Address

0080-150-400

BORTOLAZZO RICHARD A & S M

Year Bldg. Built 1932-1945

Year Bldg. Removed Unknown

Site Area (SqFt) 35

Current Land Use Mixed Use-Lower Arsenal

OPERATIONAL HISTORY

DoD Use Type

Utilities

DoD Uses

Transformer House

Secondary DoD Uses

Transformer

Post-Army Uses

None identified

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Unknown

Records Research Report Addenda Data

Building included in the 1961 Facility Data Sheet.

Records Research Report Comments

Located North of Madison Street, midway between Buildings 27 and 28. The building first appears on a 1945 map as a "transformer house" but does not appear on a 1932 map. A subsequent building inventory confirms the same use.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

On February 12, 2004, a site visit was conducted to determine if there is an evidence of staining due to possible transformer leakage or stressed vegetation in the area of the former building. There are no remnants of the building, and there was no evidence of staining or stressed vegetation in the area. Thus, there is no visual evidence indicating any potential environmental concerns related to DoD activities at this site.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

59

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-280-050	HISTORIC ARSENAL PARK LTD	985 LINCOLN ROAD
Year Bldg. Built	Year Bldg. Removed	Site Area (SqFt)
1910	Not applicable	1102
Current Land Use		
Mixed Use-Lower Arsenal		

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Tool House/Degreaser Pit

Secondary DoD Uses

Tools house

Post-Army Uses

Occupied by Roberto Flores since 1969 for machine shop to 1976 (ref 582). Current status unknown.

Flooring

Concrete

Disposal Information

Unknown

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Oxygen storage 1962 vacate date (ref 713). In 1910, built as a tool house. In 1951, degreaser pit built. In 1957 inventory identified as tool house.

Records Research Report Comments

Storehouse for oils and paints, early 1900s.

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	UST	US Army	0	Unknown	Unknown	1951	Unknown	Unknown	<input type="checkbox"/>

Uses: Degreaser Pit

Comments:

Furthest Stage of Environmental Investigation

NONE

COMMENTS

Tool house used to store oils and paints and contains degreaser pits.

RECOMMENDATIONS

Investigation is recommended to determine the presence or absence of fuels, solvents, metals and oils in groundwater downgradient of the building for a potential release from degreasing activities.

PA Summary

DoD Site #

59(A)

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET
0080-280-050	HISTORIC ARSENAL PARK LTD	985 LINCOLN ROAD

Year Bldg. Built: 1910 Year Bldg. Removed: 1945 Site Area (SqFt): 1633

Current Land Use: Mixed Use-Lower Arsenal

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Tool House

Secondary DoD Uses

None Listed

Post-Army Uses

None

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Unknown

Records Research Report Addenda Data

None

Records Research Report Comments

Records Research does not specifically mention this building.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

SI

COMMENTS

Building removed prior to the construction of Building 56A in 1945. In March through May 1999, the USACE conducted a subsurface investigation to assess the potential impact of soil and groundwater from oils that were stored at this location. Elevated concentrations of diesel fuel and motor oil in soil and in groundwater were reported. Elevated concentrations of halogenated VOCs were also found in groundwater. Results may indicate a release from oil stored in the former tool house or from adjacent facilities (Building 53 and Building 56A) (ref 1207).

RECOMMENDATIONS

The report recommends conducting an additional soil investigation to determine the lateral and vertical extent of TPH and PAHs for the suspected USTs beneath the southeast corner of Building 56A and the tool house at former Building 59(A). (ref 1207). Additionally, an investigation is recommended to further delineate the presence of fuels and solvents in groundwater downgradient of this building (and complex).

PA Summary

DoD Site #

60(B)

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-140-280	ALLEN DAVID W	991 JACKSON STREET			
Year Bldg. Built	1942	Year Bldg. Removed	Not applicable	Site Area (SqFt)	8600
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Storehouses and Warehouses

DoD Uses

Storehouse Group K-Chemical Stores

Secondary DoD Uses

Storage

Post-Army Uses

Silk screen printing for Bel-Aire displays from 1968 to 1980 (ref 425, 587, and 702). (Current use unknown).

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

None Listed

Records Research Report Comments

Group K was a classification used by the Army for the identification of chemical stores.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

There are no records indicating any potential environmental concerns related to DoD activities at this site.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

62

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-150-260	FITZSIMMONS RICHARD & C	1043 GRANT STREET			
Year Bldg. Built	1926	Year Bldg. Removed	Not applicable	Site Area (SqFt)	1024
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Surveillance Laboratory

Secondary DoD Uses

Laboratory

Post-Army Uses

Pacific Everett Company office, Sea View Plastics, Plastics Manufacturing, Hans Knecht Furniture Manufacturing, Woodcraft of Benicia Furniture Manufacturing. 1973: Pacific Everett Co. as office space and Sea View Plastics for plastics manufacturing (ref 425). 1975: Hans Knecht for furniture manufacture. 1977: Woodcraft of Benicia for furniture manufacture.

Flooring

Concrete

Disposal Information

Unknown

Activities (inside/outside)

Inside

Records Research Report Addenda Data

In 1926, portions of building converted to a Surveillance Lab. In 1929, one electric oven was installed. A memo from the Officer of the Inspector General, dated 22 March 1937, stated that "the stocks of ammunition, equipment, and other supplies are the subjects of continuous checks and tests as to their retained efficiency and condition. A surveillance inspector is making constant tests of ammunition, the results of which govern the stocks which are withdrawn from war reserves and issued for immediate consumption on specific authority of the Chief of ordinance" (ref 131).

Records Research Report Comments

Old Storehouse was rebuilt into a laboratory in 1926. One thermometer for electric oven installed in 1929. No documentation was located with regard to processes performed in this building.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

There are no records indicating any potential environmental concerns related to DoD activities at this site.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

63

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-140-100	BENICIA INDUSTRIES INC	1200 ADAMS STREET			
Year Bldg. Built	1917	Year Bldg. Removed	1983-1998	Site Area (SqFt)	13358
Current Land Use	Industrial-Waterfront				

OPERATIONAL HISTORY

DoD Use Type

Storehouses and Warehouses

DoD Uses

Storehouse

Secondary DoD Uses

Storage

Post-Army Uses

Manufacturing and storage of doors for Wm. H. and Lorraine Burke from 1968 to 1976 (ref 584). Leased to Burke Co. in a 1980 appraisal document (ref 576). Burke original lease began in 1968(ref 587). Burke still leasing in 1983 (ref 597).

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

A 1961 Facility Data Sheet stated that there was a 1 ton Otis electric elevator in the building (ref 196).

Records Research Report Comments

Lower floor used by millwright division. Benicia Industries demolished Building 63. No records of specific uses by Army.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

There are no records indicating any potential environmental concerns related to DoD activities at this site.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

64

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-130-020	BENICIA CITY	
Year Bldg. Built	1939	Year Bldg. Removed
		Not applicable
Current Land Use	Industrial-Waterfront	
	Site Area (SqFt)	1231

OPERATIONAL HISTORY

DoD Use Type

Utilities

DoD Uses

Pump House

Secondary DoD Uses

Fuel Type

Post-Army Uses

None Identified

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Water for fire protection.

Records Research Report Comments

Building remains. There were a total of 7 pumps identified between Building 64 and 54, four of which were diesel. Two pumps appear to belong to Building 64 with a total capacity of 8,750 gpm.

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date	Date	Post-Army	Installed Post-Army
						Installed	Removed		
1	ASTs	US Army	0	Unknown	Unknown Fuel	Unknown	Unknown	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments: Unknown how many ASTs were used to power pumps.

Furthest Stage of Environmental Investigation

NONE

COMMENTS

Records Research is unclear as to the exact amount of tanks/pumps associated with this building or if they are still exist. Pumping Plant 64 switched to standby with a capacity of 6,000 gpm upon completion of Highway Bridge and Waterline in 1962 (ref 1093).

PA Summary

DoD Site #

64

Area: I

RECOMMENDATIONS

Additional research is recommended to determine if this building and associated tanks/pumps were used beneficially.

PA Summary

DoD Site #

65(A)

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address	
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET	
Year Bldg. Built	1918	Year Bldg. Removed	Post 1964
Site Area (SqFt)	600		
Current Land Use	Mixed Use-Lower Arsenal		

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Boiler House

Secondary DoD Uses

Unknown

Post-Army Uses

None Identified

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Boiler House 1964 vacate date (ref 713). According to the Facility Data Sheet (Records Research does not indicate which Facility Data Sheet), there were two gas-fired boilers installed, the first boiler was installed in 1940 and the second boiler was installed in 1955. In 1928, an oil burner was installed in the boiler.

Records Research Report Comments

Boiler house (removed at an unknown date before Building 56A in 1944). Coal or wood was used to fire the boiler before an oil burner was installed in 1928 (ref 130).

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	AST or UST?	US Army	0	Unknown (likely steel)	Fuel Oil	Unknown	Pre 1944	No	<input type="checkbox"/>

Uses: Fuel Storage

Comments: This tank was not listed in the Records Research Report. However, boiler houses required a fuel source. Based on other boiler houses during this time period, it was likely that a fuel tank was located in the area and may be the same one for B58.

Furthest Stage of Environmental Investigation

SI

COMMENTS

USACE conducted a geophysical survey in March 1999 to evaluate the thickness of Building 56A concrete slab and to plan for

PA Summary

DoD Site #

65(A)

Area: I

sampling activities in order to avoid underground piping and utilities. Underground utilities were not identified and the thickness of the slab could not be determined. Building 65A was located beneath the southwest portion of Building 56A. This survey did not identify any features that would indicate the presence of former Building 65(A) or any associated UST for the boiler house (ref 1207).

RECOMMENDATIONS

Recommendations were made to conduct an additional soil assessment to determine the lateral and vertical extent of TPH, lead, and PAHs at former Building 65(A). Additionally, an investigation is recommended to further delineate the presence of fuels and solvents in groundwater downgradient of the former building (and complex).

PA Summary

DoD Site #

65(B)

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address	
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET	
Year Bldg. Built	Pre 1932	Year Bldg. Removed	Not applicable
Site Area (SqFt)	1324		
Current Land Use	Mixed Use-Lower Arsenal		

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Boiler House

Secondary DoD Uses

None Listed

Post-Army Uses

None Listed

Flooring

Concrete (currently)

Disposal Information

In 1999, soil was removed from the boiler house floor by the landowner and spread out in a breezeway between Building 56B and 56A.

Activities (inside/outside)

Unknown

Records Research Report Addenda Data

Text in Records Research Report was listed as Building 65(A). Two boilers have been removed by the property owner. (In 1999, soil was removed from the boiler house floor by the landowner and spread out in a breezeway between Building 56B and 56A. Then the floor of the Building 65(B) was filled in with concrete to grade.)

Records Research Report Comments

(A former Arsenal employee stated that a former machine gun test firing range was located in the area of a courtyard adjacent to Building 65(B)).

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal)	Construction	Commodity Stored	Date	Date	Post-Army	Installed Post-Army
						Installed	Removed		
1	UST	US Army	0	Unknown	Fuel Oil	Unknown	Unknown	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments: Geological survey identified parabolic reflections beneath the concrete floor that may indicate the presence of USTs. However, there is a buried concrete floor that may be the cause of the reflections.

Furthest Stage of Environmental Investigation

SI

COMMENTS

A geophysical survey conducted by USACE in March or May of 1999 located suspected USTs associated with the former

PA Summary

DoD Site #

65(B)

Area: I

Building 65(B) Boiler House. There were subtle parabolic reflections beneath the concrete floor. Evidence for the presence of USTs is inconclusive. If the parabolic reflections are USTs, it is estimated to be between 15,000 and 20,000 gallons in size (ref 1207). The USTs, if present, would be beneath 2 separate concrete floors. (The second concrete floor may be the cause of the parabolic reflections). During the 1999 investigation, the USACE and regulators agreed that limited access and the complex floor structure would be unfeasible to try and find the USTs or even drill a boring in the area. Therefore, one boring located in courtyard, approx 20 feet west, was deepened and fuel-related compounds were added to the samples for chemical analysis.

RECOMMENDATIONS

Recommendations were made to conduct an additional soil investigation or site-specific risk analysis to determine the extent or risk of lead at the former machine gun test firing range at Building 65(B) and for the soil removed from the former boiler house. (ref 1207).

PA Summary

DoD Site #

66(A)

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-280-030	HISTORIC ARSENAL PARK LTD	900 JACKSON STREET			
Year Bldg. Built	1918	Year Bldg. Removed	1932-1945	Site Area (SqFt)	907
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Paint Shed/Shop

Secondary DoD Uses

None Listed

Post-Army Uses

None

Flooring

Concrete

Disposal Information

None Listed

Activities (inside/outside)

Unknown

Records Research Report Addenda Data

Building appears on a 1932 map (ref 651). Building does not appear on a 1945 map (ref 650).

Records Research Report Comments

Records Research does not specifically mention this building.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

SI

COMMENTS

Building removed in the 1940s. In March through May 1999, the USACE conducted a geophysical survey and drilled one soil boring to assess the potential impact of explosives and metals from metals and oils stored in the former Paint Shed/Shop in Building 66A. No anomalies were found during the geophysical survey. Analytical data indicate no impact to surface or subsurface soil (ref 1074).

RECOMMENDATIONS

No further action under FUDS recommended for this site (ref 1207).

PA Summary

DoD Site #

66(B)

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0095-721-100	GROSSMAN LAWRENCE I & SUSAN C	940 ADAMS STREET			
Year Bldg. Built	1918, remodel 1943	Year Bldg. Removed	Not applicable	Site Area (SqFt)	1224
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Industrial/Manufacturing Shops

DoD Uses

Paint Shed/Paint Shop/Welding Shop

Secondary DoD Uses

Paint Spray/Shed

Post-Army Uses

Machine shop operation for H & D Machine & Engineering from 1968 to 1977. Current use unidentified.

Flooring

Unknown

Disposal Information

Unknown

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Built in 1918 to store paints and oils. Renovated in 1932 to house a paint shop and again in 1943 to house a welding shop.

Records Research Report Comments

Remodeled into a paint shop in June 1932 and a welding shop in 1943. No documentation was located that detailed the processes performed at the facility.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

There are no records indicating any potential environmental concerns related to DoD activities at this site.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

68

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-140-390	ALLEN DAVID W	1060 JACKSON STREET			
Year Bldg. Built	1919	Year Bldg. Removed	Not applicable	Site Area (SqFt)	18450
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Storehouses and Warehouses

DoD Uses

Storehouse

Secondary DoD Uses

Storage

Post-Army Uses

Leased by Olin Corporation for chemical manufacturing of urethane systems production in 1969 to 1992 (ref 587). Current use of building unknown.

Flooring

Unknown

Disposal Information

Olin Corporation contracted Peregrin Environmental Group to implement closure of the property including the cleaning and transporting three process tanks for disposal, a freon storage tank and product cylinders were returned to the Olin facility in Kentucky. Scrap metal was transported to a recycler and construction debris including concrete and cured urethane was hauled away for disposal. Approximately 500 gallons of rinse water was discharged to the City of Benicia wastewater system and 1.5 cubic yards of non-friable asbestos floor tile were disposed. The collection sump located near the process tanks was cleaned and inspected prior to being backfilled.(ref 531)

Activities (inside/outside)

Inside

Records Research Report Addenda Data

None listed

Records Research Report Comments

No records were located to identify specific usage. Samples were taken to assess the various waste streams. On March 23, 1992, one sample of the dried residue remaining in the 12,000-gallon tank, was sampled for arsenic, barium, cadmium, lead, selenium, and silver, using the TCLP method. The sample results indicated that these analyte concentrations were within acceptable parameters. On May 1, 1992, one sample was taken of the dried resin that was to be removed during the concrete grinding and planning. Another sample of the 12,000 gallon tank was taken at the same time. Samples were analyzed for toxicity characterization leaching procedure (TCLP) metals, TCLP-ZHE, cyanides, pH, flashpoint, VOCs, semi-VOCs, and a static acute hazardous waste bioassay. Results showed elevated levels of cadmium with all other analytes within acceptable parameters. On June 9, 1992, a rinsate sample was submitted for cadmium analysis with results reported as acceptable (ref 531). A final Closure Report was submitted to SCDDEM (Solano County Department of Environmental Management) on 8 September 1992. Regulatory status is unknown.

PA Summary

DoD Site #

68

Area: I

ENVIRONMENTAL SUMMARY

Vessel Inventory

	Type	Original Owner	Size (Gal.)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
Vessel # 1	AST	Olin Corporation	0	Unknown	Unknown	Unknown	Unknown	Yes	<input checked="" type="checkbox"/>
Uses: Dip Tank Comments: Unknown size and content of Tank. Olin Corporation transported back to facility in Kentucky. Assumed the tank was an AST because it was removal and then transported probably for additional use.									
Vessel # 2	AST	Olin Corporation	0	Unknown	Unknown	Unknown	Unknown	Yes	<input checked="" type="checkbox"/>
Uses: Dip Tank Comments: Unknown size and content of Tank. Olin Corporation transported back to facility in Kentucky. Assumed the tank was an AST because it was removal and then transported probably for additional use.									
Vessel # 3	AST	Olin Corporation	3900	Unknown	Fyrol PCF	Unknown	Unknown	Yes	<input checked="" type="checkbox"/>
Uses: Flame Retardant Comments: Olin Corporation transported back to facility in Kentucky. Assumed the tank was an AST because it was removal and then transported probably for additional use. Fyrol PCF is a Chlorine/Phosphorus Fire Retardant.									
Vessel # 4	AST	Olin Corporation	0	Unknown	Freon - Type Unknown	Unknown	Unknown	Yes	<input checked="" type="checkbox"/>
Uses: Freon Storage Comments: Unknown size and type of Freon in Tank. Olin Corporation transported back to facility in Kentucky. Assumed the tank was an AST because it was removal and then transported probably for additional use.									
Vessel # 5	Cylinders	Olin Corporation	0	Unknown	Product?	Unknown	Unknown	Yes	<input checked="" type="checkbox"/>
Uses: Unknown Comments: Unknown size, quantity, and content of cylinders. Olin Corporation transported back to facility in Kentucky.									
Vessel # 7	AST or UST?	Unknown	12000	Unknown	Unknown	Unknown	Unknown	Yes	<input type="checkbox"/>
Uses: Unknown Comments: Unknown if tank is an AST or UST. Unknown content. Unknown if tank was installed by DoD or Olin Corporation or if the tank was removed.									

Furthest Stage of Environmental Investigation

NONE

COMMENTS

It is unclear as to what was stored in the storehouse before 1965. It is also unclear if the 12,000 gallon tank was put there by DoD or by Olin Corporation and if it is still there. Investigation activities are related to post-Army Use. It is unknown if the site requires further investigation by SCEDM. Records do not indicate any DoD-related concerns.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

69

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-140-390	ALLEN DAVID W	1060 JACKSON STREET			
Year Bldg. Built	1919	Year Bldg. Removed	Not applicable	Site Area (SqFt)	14970
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Storehouses and Warehouses

DoD Uses

Storehouse

Secondary DoD Uses

Storage

Post-Army Uses

Leased by Olin Corporation for chemical manufacturing 1969 to 1979 (ref 587 and 702).

Flooring

Unknown

Disposal Information

None Listed

Activities (inside/outside)

Unknown

Records Research Report Addenda Data

None listed

Records Research Report Comments

No records were located that identified specific processes

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

Unknown type of chemical manufacturing Olin Corporation was conducting. Possible chemicals of concern are based on the activities at Building 68 after the Army. There are no records indicating any potential environmental concerns related to DoD activities at this building.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

70

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address			
0080-280-010	HISTORIC ARSENAL PARK LTD	920 JACKSON STREET			
Year Bldg. Built	1919	Year Bldg. Removed	Not applicable	Site Area (SqFt)	3425
Current Land Use	Mixed Use-Lower Arsenal				

OPERATIONAL HISTORY

DoD Use Type

Utilities

DoD Uses

Powerhouse for entire Arsenal

Secondary DoD Uses

Fuel type

Post-Army Uses

Presently a ballet school. PG&E purchased the electric and gas distribution facilities within the Arsenal property in 1966 (ref 468). It is unknown if this facility was included in the sale.

Flooring

Wood and concrete?

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Buster Byerrum, a former Arsenal employee, identifies that Building 70 housed a very large diesel powered generator used for emergency power during WWII for blackouts. According to a 1949 facility analysis, power was furnished by Pacific Gas and Electric Company (PG&E) through an overhead line that entered the Arsenal at the southwest corner of the post.

Records Research Report Comments

There was construction of an addition to the Power House in the form of a 30 foot by 38 foot concrete addition to accommodate emergency power equipment (ref 268). The building housed a 3,000 KVA 12,000/2400 volt transformers that were owned by PG&E (ref 268). Building was built on decomposed sandstone. It was determined that a strata of sandstone sloped off to the northwest corner and it was there that groundwater was encountered at about 5 feet bgs.

ENVIRONMENTAL SUMMARY

Furthest Stage of Environmental Investigation

NONE

COMMENTS

Building on decomposed sandstone and near groundwater. USACE requires documentation of features, such as a UST, prior to performing an investigation into possible contamination. There is no documentation indicating a UST was present and there are no records indicating any potential environmental concerns related to DoD activities at this building.

RECOMMENDATIONS

No DoD action is indicated (NDAI) for this site.

PA Summary

DoD Site #

71

Area: I

NDAI FAR IRR Potential OE

SITE DESCRIPTION

Parcel # (APN)	Owner Name	Site Address
0080-140-140	BENICIA INDUSTRIES INC	1052 TYLER STREET
Year Bldg. Built	1920	Year Bldg. Removed
		1980's
Current Land Use	Industrial-Waterfront	
	Site Area (SqFt)	86417

OPERATIONAL HISTORY

DoD Use Type

Storehouses and Warehouses

DoD Uses

Artillery and Ordnance Material Storehouse

Secondary DoD Uses

Fuel type, ordnance

Post-Army Uses

1977: leased to Leyland Motor Sales, Inc. for office, storage and other purposes associated with tenants business of foreign made motor vehicles (ref 702). Currently vacant and used for vehicle storage. Benicia Industries has plans to build a rice warehouse.

Flooring

Inspection Report 26 April 1926 listed dirt floor

Disposal Information

None Listed

Activities (inside/outside)

Inside

Records Research Report Addenda Data

Building constructed with footings on wood pilings and in 1926 the wood pilings were cut off below the groundwater level and topped by concrete piers due to settling problems. A 1937 report identified the construction of reinforced concrete buttresses on the exterior wall to control outward movement. 9 buttresses were supported by three wood pilings (ref 133). In 1950, new gas mains were installed and an oil furnace was converted to natural gas (ref 151). Jim Milburn, a former Arsenal employee, recalled that there was an inner room associated with this building and a UST had supplied fuel for the heat source. According to a Historical Summary for the period of 7/1/50 to 12/31/50, contracts were awarded to convert fuel oil furnaces in Buildings 71, 88 and 89 to natural gas (ref 151). According to a Project Estimate for fiscal year 1955, the existing storm drain pipe between Buildings 71 and 73 was in need of repair. Due to the acid condition of the original swamp land, the pipe had deteriorated and silt had seeped in until the pipe could not carry run off water which ended up accumulating on the surface destroying the paved roadway. The existing "CMP" pipe was replaced with transite pipe. Project completed in first half of 1955 (ref 157).

Records Research Report Comments

Reportedly, fuel oil was used for the heat source. Demolished in 1980's by Benicia Industries. Constructed over a possible Arsenal Landfill (see Fillsite 1 in Area I). Building originally used for the storage of field guns and parts, miscellaneous ordnance material and paints. In 1936 the US Army conducted a study of soil conditions in the Building 71 area. There was the presence of a ravine starting at the northwest corner located 40 feet below grade and extending diagonally across the building to the south wall at a point about the center of the second section B of the building where hard bottom is 68 feet below grade.

PA Summary

DoD Site #

71

Area: I

ENVIRONMENTAL SUMMARY

Vessel Inventory

Vessel #	Type	Original Owner	Size (Gal)	Construction	Commodity Stored	Date Installed	Date Removed	Post-Army	Installed Post-Army
1	UST	US Army	0	Unknown	Diesel	Unknown	Unknown	Unknown	<input type="checkbox"/>

Uses: Fuel Storage

Comments: Former Arsenal employee stated that tank was there. Unknown of size, and location.

Furthest Stage of Environmental Investigation

NONE

COMMENTS

The location or status of the fuel oil tank is unknown. There were no anomalies found during the Fillsite 1 Geophysical Survey that would indicate a buried UST and none found during the excavations. Therefore, the UST may have been removed or located along Tyler Street (outside of the geophysical survey). Other than the UST, there are no environmental concerns associated with former DoD activities using the building for storage.

RECOMMENDATIONS

Additional investigation is recommended to determine the presence or absence of the UST through geophysical and/or subsurface investigation downgradient of the suspected location for a possible release.