



ROYAL DUTCH SHELL IN AMERICA

EARLY DAYS IN MARTINEZ

THE

BUILDING OF

THE MARTINEZ DEPOT

SEPTEMBER 1912

THRU

JUNE 1913

BOOK No. 1 of 3

## ACKNOWLEDGEMENT

This booklet is made possible by the foresight and resources of the Shell Martinez Alumni Museum Association (founded in 1988), the generous donation of time and effort of the museum alumni, and the collection of artifacts that allow the museum to exist.

The Introduction in this document is an edited version of the material published in the January 2013 thru May 2013 Shell Alumni Newsletters.

The photographs in this document with dates unless noted are from an original construction scrapbook from 1912. The photograph on top of page 61 was not in the scrapbook, but mounted on Museum general photo display. Text with each photo is in general copied from the scrapbook and is enhanced when additional information was available.

Appendix I - The construction ledger page is from the 1915 - 1916 Refinery Construction Ledger now in the museum collection.

Appendix II - Is a list of dates relating to Royal Dutch Shell and the development of the petroleum industry. The list is compiled from various sources in the Alumni Museum.

Appendix III - Is a list of the source material used for writing the monthly Historical Shell articles that have been published in the Shell Alumni Newsletter since January 2013.

The source of the 1853 sketch of Martinez is unknown.

By: Robert Canning, Museum Director and Historian, Shell Alumni Museum, Martinez, California - December 2014

Cover: Page 15, 1928 drawing, The Shell Poster Book, by David R. Godine, Publisher, Boston

Back: Page 1, 1920 drawing, The Shell Poster Book, by David R. Godine, Publisher, Boston

## INTRODUCTION

### THE DISCOVERY OF OIL AND THE BEGINNING OF ROYAL DUTCH SHELL And the SHELL OIL COMPANY MARTINEZ, CALIFORNIA

It seems like there has always been oil seeping out of the ground all along the California coast from Humboldt in the north to La Brea and beyond in the south. The native Indians used the thick tar like substance to seal baskets, waterproof their boats, secure arrowheads on their shafts and even for decorations. Early coastal explorers also used the seep to seal cracks on their boats.

For centuries candles or clay lamps using animal fat or vegetable oil with a crude wick were used for illumination - at least 3 or 4 thousand years ago.

In 1787 an improvised wick was patented in Switzerland. Then by adding a glass chimney a clean bright light was produced. Sperm whale oil was burned as fuel. As whales became scarce, the cost went higher and higher.

In 1846 a light oil called Kerosene was distilled from coal by Abraham Gesner in Canada but his efforts to develop a business failed once oil was discovered in large quantities.

In California in the mid 1850's settlers used the seeps to seal their roofs and some began to distill the seep oil to produce a usable lamp oil for illumination.

Oil was discovered in 1859 in Titusville Pennsylvania when Colonel Edwin Drake drilled a well that produced an initial yield of 20 barrels a day. The importance of Drake's well was that he proved that one could drill for oil. After Drake's well was in production, a drilling frenzy developed in the area. Within 2 years, there was so much oil produced that the price fell from \$20 a barrel to \$0.52 a barrel. Within 5 years, there were some 60 refineries in Pennsylvania producing "Kerosene". ( A collection of vapors distilled from oil.) The great Pennsylvania oil boom had begun.

Oil was also discovered in Texas and Oklahoma. In 1861 the first oil well was drilled in California in Humboldt County soon to be followed with discoveries and drilling in parts of the central valley and southern California. Back in Pennsylvania, In 1863 John D. Rockefeller started business marketing oil and oil products; that was the beginning of the Standard Oil Company. Later to become the Standard Oil Trust of New Jersey better known as the "Standard".

The Nobel brothers dealing in Russian Oil designed the first ocean going tanker in 1877 to use in the Caspian Sea Trade. In 1881 special railroad tank cars were developed in Russia and just five years earlier the Nobel Brothers also perfected the first oil pipeline in Russia. In 1877 in America Van Sikkle (Syckle) built the first successful pipeline in Pennsylvania. Once developed, Rockefeller worked to take control of the pipeline industry which he used to his advantage in building up Standard Oil.

In France the Rothschild's organized an oil company in the early 1880's and began to sell Russian Kerosene in Europe. By the early 1880's Samuels found that they could no longer count on doing business the old way and looked for other products to ship to the Orient. When he saw Nobel's tanker he knew that was the way to do his shipping. He dealt with the Rothschild's in Russian Oil and began to trade Kerosene by shipping through the new Suez Canal to the Far East.

In 1880 **Aeilko-Jan Zijker**, superintendent of a Dutch tobacco plantation on the east coast of Sumatra, discovered a "kerosene" like oil floating on one for the water pools in the area. He took a sample and had it analyzed - it was found to make a very fine lamp oil. He was given a lease by the Sultan of Langkat to explore and produce petroleum.

In 1882 he went to Holland to secure capital, but no luck. In July 1884 he returned to Sumatra and started drilling for oil with what little capital he had. In 1889 he headed back to Holland and on the ship he met N.P. Van Den Berg, a powerful banker. He explained what he had been doing and Van Den Berg agreed to become chairman of Zijker's company. He used his influence to get royal sponsorship for the venture from King Willem III, which enabled the venture to raise capital.

In May 1890, back in Holland, a new company is formed and chartered in June of that year. The royal sponsorship attached "Royal" to the full company name *Naamlooze Vennootschap Koninklijke Nederlandsche Maatschappij tot Exploitatie van Petroleumbronnen in Nederlandsch-Indie* this Dutch name was quite long and becomes known in public as (*Koninklijke*) or in English the **Royal Dutch Company**. Unfortunately Zijker died six months later in Singapore before he could witness the development of his dream.

Meanwhile, back in Sumatra a refinery was in the process of being constructed, but things were not going well. **August Kessler**, the son-in-law of one of the Directors of the Royal Dutch Company was sent to Sumatra. He arrived in 1891 to oversee the building of the new refinery. He worked tirelessly to get it up and running. Conditions were very bad, but Kessler, suffering from a fever, worked day and night and was everywhere with improvisations, giving instructions and managing the overall operation. With the greatest difficulty, Kessler and his team were able to get refinery up and running, and in February 1892, the first oil flowed through the new pipe to the refinery. The first product was sold under the name of Crown Oil.

Under Kessler, the company expanded its refining capacity, built a fleet of tankers and constructed several tank farms. He also started joint venture talks with **Marcus Samuel**, an important trader in oil products based in London under the "Shell" name. In 1896, **Henri Deterding** joined Royal Dutch as Kessler's deputy and in 1897, Royal Dutch increased its capital to 5 million guilders (in 1890, the nominal capital had been 1.3 million guilders) and paid a dividend of 52 percent.

With all of this activity, even mighty Standard Oil began to get concerned about the new rival in the business. Standard Oil, under Rockefeller, was cutting oil prices in an attempt to increase its share of the oil market. Royal Dutch was much smaller than Standard and could not survive alone against a Standard price war.

Now by the turn of the century the "Shell" Transport & Trading Company and Royal Dutch had arrived at the same kind of organization, but from different starting points. Both were dealing in the same products and in the same area of the world.

By 1901 the "Shell" Transport & Trading Company, Limited of London was in a competitive position in the Indies with Royal Dutch. This company was only recently into oil, but the company goes back to its start when Marcus Samuel established a trading company dealing with the Orient in 1830. Among the items imported were polished sea shells. They took all kinds of goods east and returned with tea, rice, jute, shells, and other commodities. In May of 1892 Samuel's first oil tanker was launched and in October 1897 the "Shell" Transport & Trading Company, Limited of London was organized. In January 1901, with the decline of the Pennsylvania oil fields and the discovery of oil in Texas, Samuel entered into contracts for Texas oil products. He ordered more tankers to move oil into the European market.

Deterding felt that Royal Dutch needed to grow to be competitive and was looking for partners to merge with; he found two companies, the "Shell" Transport & Trading Company and the Rothschild's Company in Paris. In June 1902 a three - party agreement was signed and the Asiatic Petroleum Company, Ltd. was established to act as the sole selling agent in the Far East. The merger took place in 1907, with Royal Dutch taking a dominant role by owning 60 percent of the new holding company. This group of companies would now be known as the Royal Dutch - Shell Group. They would continue to form new companies under their control as needed.

The last half of the 1800's and early 1900's saw increased drilling and more oil production in California. The large oil companies became involved with the discovery of the great oil fields of the Kern river area and Los Angeles. By 1905 the annual state production reached 34 million barrels of oil and by 1910 the US had 65% of the World's output, a large part came from California.

The Standard Oil Trust had grown into a huge monopoly, and was forced, by the federal government in 1911 to break-up into a number of Standard Oil companies, each named by the state they were operating in. Standard Oil of California then became known as Chevron around the mid 1900's.

In September 1912, fifteen acres of land on Suisun Bay at Martinez was purchased for \$8,500 by the American Gasoline Company (the first US company of Asiatic Petroleum Company, Ltd) for the erection of a deep water terminal. The original blueprint dated June 1912, provided for a wharf, six tanks, a dormitory and two bungalows. The blueprint bearing the date of November 1912 had the name "American Gasoline Company", a New York corporation that was organized on September 3, 1912. In a few years American Gasoline Company would be known as Shell Oil Company of California.

Shell established a presence in California by opening an office in the Kohl Building on Montgomery Street in San Francisco around 1911-1912 (just five years after the great earthquake). Their new office consisted of five rooms and a staff of 6. Two years later they moved to Samson Street.

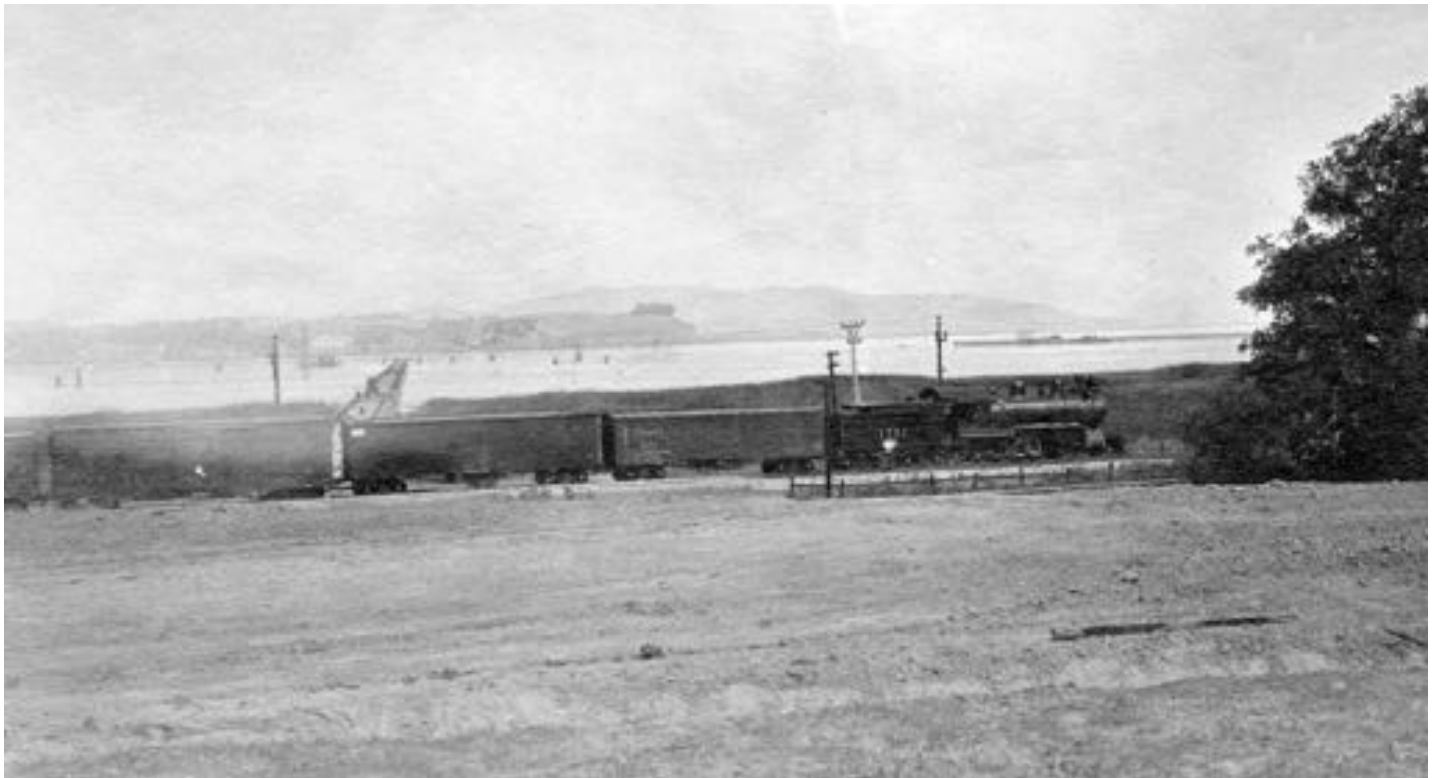
In June 1913 the Martinez Terminal received its first shipment of Shell gasoline from Sumatra of 0.720 gravity (65 degree API). The new Shell Motor Sprits with its higher gravity made it a quicker starting fuel and a big improvement over the fuel being produced, at the time, from the California oil.



Early 1857 sketch of Martinez, California looking west from future depot site. Large building in bottom just right of center is the new court house. Martinez wharf for ferry to and from Benicia is shown in the bay on right. Source and artist unknown.



September 14, 1912 — View looking north east from lands end of wharf along railroad tracks with the American Oriental Oil Company refinery at Bulls Head to the east. In the far distance to the left is the main building and stack of the Mountain Copper smelter.



View looking north from south end of new terminal property with the new wharf under construction just left of center. Area in foreground cleared for Filling Shed and six large Depot Tanks. Train on main right-away. Benicia and Army Arsenal across the strait. - September 14th, 1912



View of the new wharf looking north from the SW edge of the new Shell Terminal property. The main line train tracks in foreground. September 21st, 1912





Unloading Material for Filling Shed — View looking North West — September 25th, 1912



View of tank bottom #2, 95' 6" diameter completed. Tank #1 bottom under construction with bottom plates spread out on the ground. Man to the left heating rivets for construction of bottom. September 22nd, 1912



Area graded for tanks. Material for tank on ground with tank #1 under construction inside earthen banks. View looking north east with Marina Vista road behind wire fence. September 27th, 1912



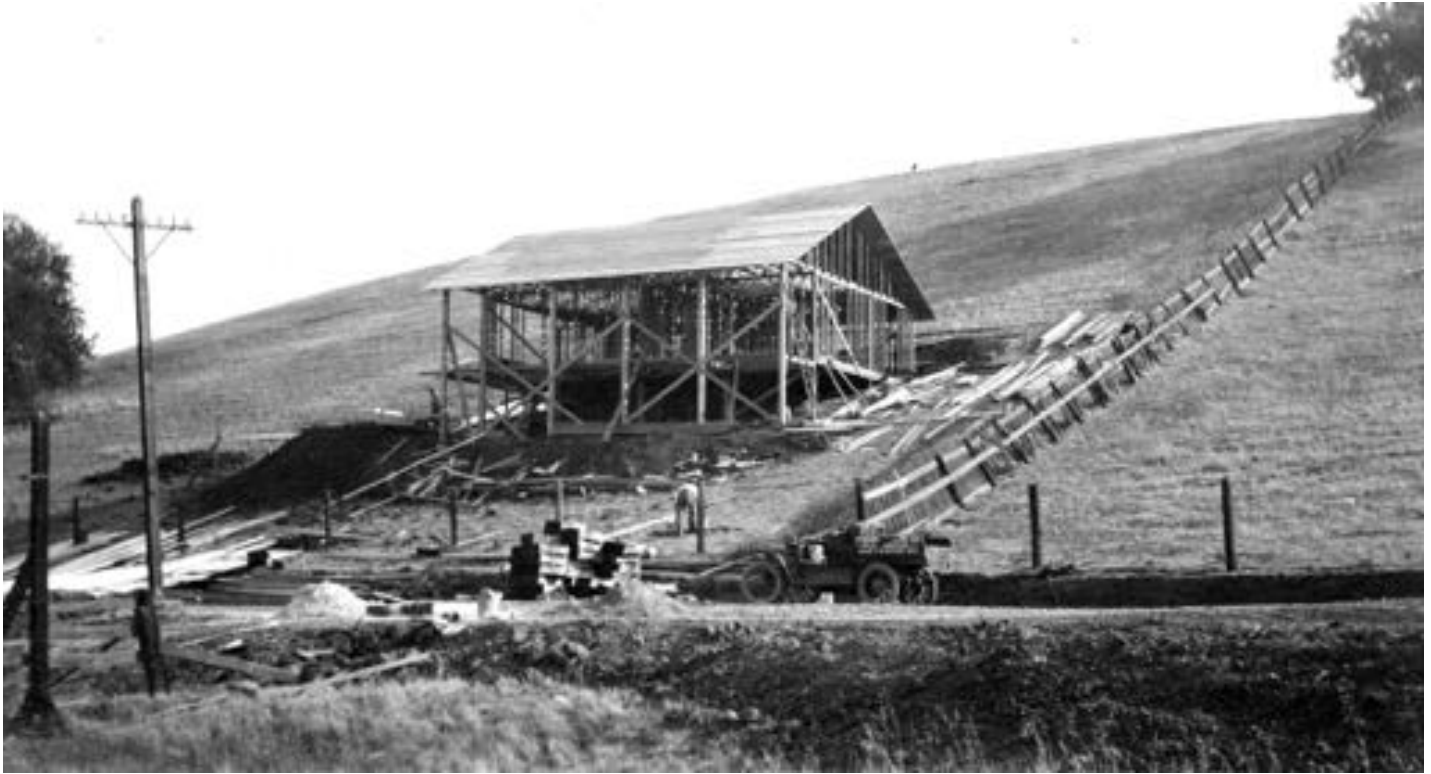
Start of construction of Dormitory staking out foundation. View looking North West. September 30, 1912.



Start of construction of Tank #1 bottom. Tanks were riveted and bottom was raised so rivets could be closed from below. Man standing on center of bottom has a small forge to heat the rivets just before placement. September 27th, 1912.



Detail of from above and from image on page 9 of man at forge getting ready to heat rivets for the fabricating of tank bottom.



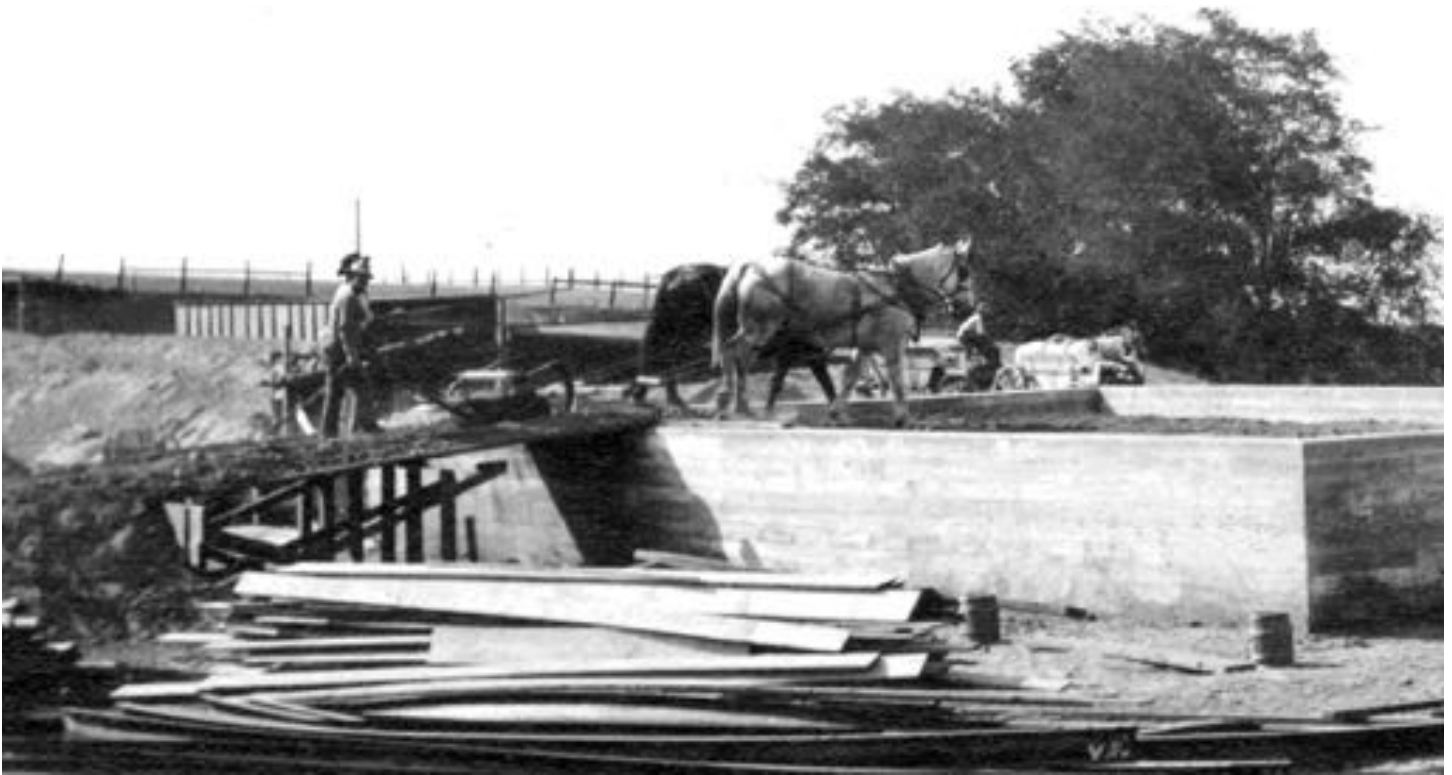
Start of Managers Bungalow on side of the road across from the new Office building under construction and above what will become Marina Vista Road. October 5th, 1912



Detail, Plumber's truck —  
FISHER & WOLFE CO, PLUMBERS  
209 Tehama St., San Francisco  
October 5, 1912



Foundation of Filling Shed ready getting ready for concrete. Gondola car on railroad siding. View looking North East. October 8th, 1912



Filling Shed Foundation detail — horse drawn sled with dirt used to fill foundation. View looking North-West. October 16th, 1912



Filling Shed under construction being filled with soil. Railroad siding tracks just behind foundation and road in foreground. View looking North West. October 16th, 1912



25 ft x 45 ft Boiler House foundation on piles on the west side of wharf. View looking north. October 16th, 1912.



View of Wharf from road looking North East. Main railroad tracks in foreground. September 27th, 1912



View of the new wharf looking north from the SW edge of the new Shell Terminal property. Old SP Ferry Steamer "ONWARD" in mud flat in front of new wharf . Crane finishing Wharf and setting piles for the new Wharf Boiler House. September 27th, 1912

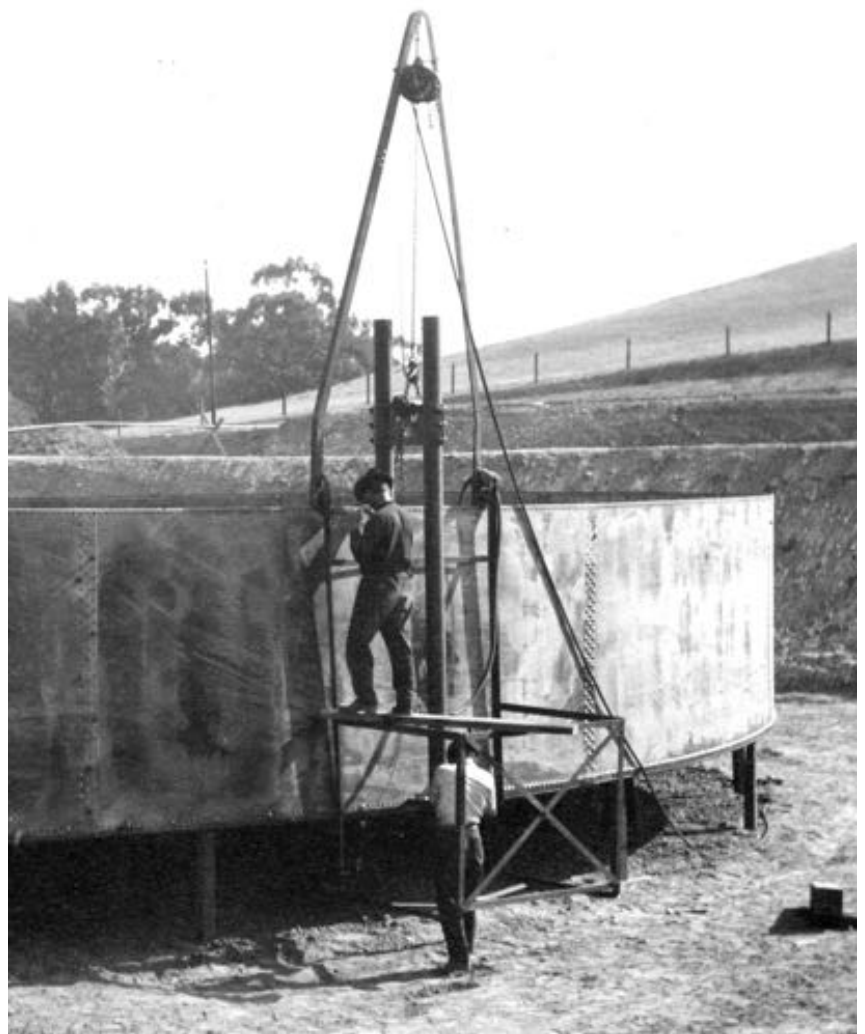


Top:

Tank #1 under construction, competition of first tier of tank's side. View looking south east. Empty ranch land for future expansion in background. October 17th, 1912.

Right:

Detail of men riveting tank seam. Man on side of tank maybe aligning the holes for rivet. Pipe frame straddling tank side is a tool to assist in the riveting task. Man on ground is most likely holding the hot rivet in place while a third man inside the tank is completing the riveting operation at the bottom.







View looking North East from fence. Filling Shed foundation under construction to right, railroad siding with open boxcar to left of shed foundation on siding. The American Oriental Refinery Wharf in distance.  
October 23rd, 1912



Cement mixer at Filing Shed pouring floor for Shed. Land end of Wharf in background to right.  
October 23rd, 1912



Filling Shed and dock under construction beside tracks. Manager's Bungalow under construction and new office building in background in final position. October 23rd, 1912.



Office Building as side of road ready to be lowered unto its foundation. October 23rd, 1912.



Filling Shed under construction beside tracks on the left. Tank #1 and Tank #2 under construction on the right. The American Occidental refinery and their wharf visible behind the row of trees. View looking north east. October 23rd, 1912.

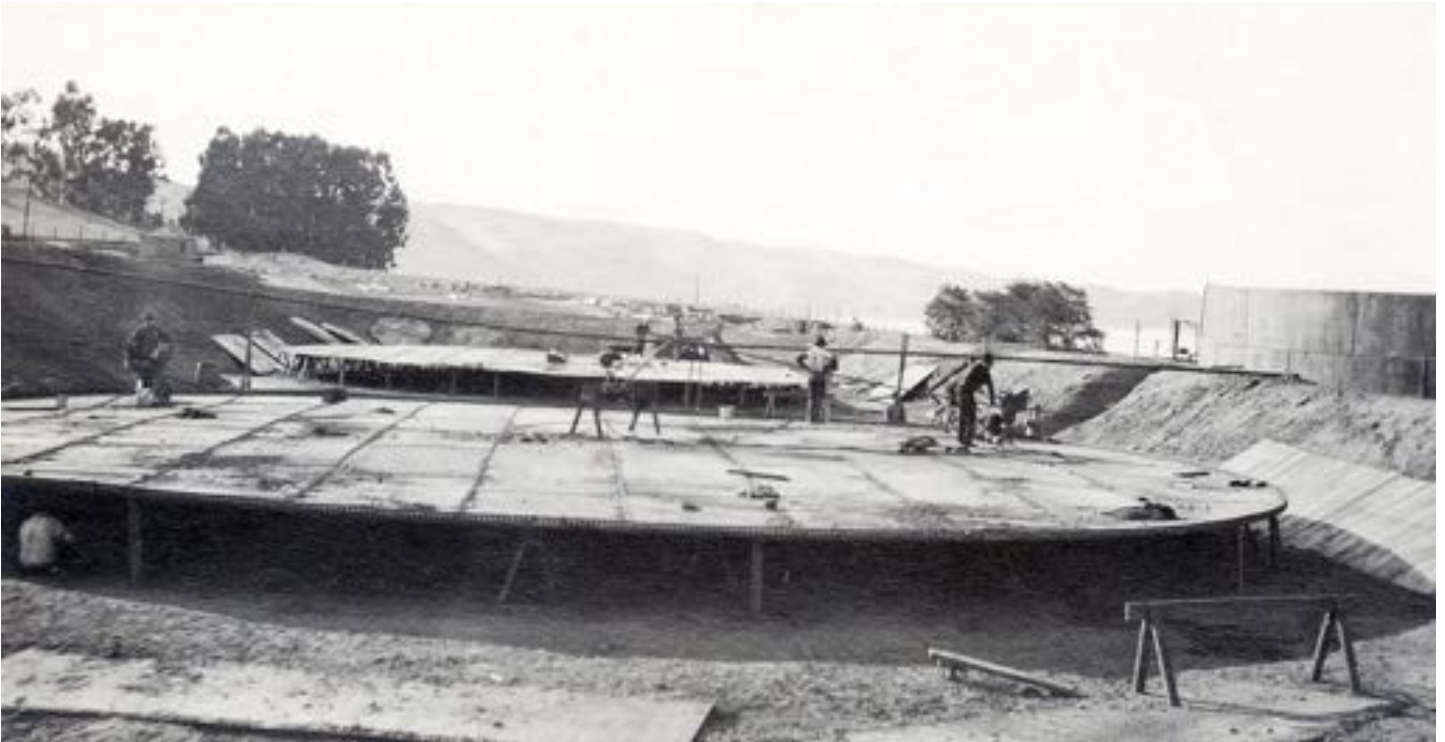


Tank #1 under construction. Second pass of tank side being installed. Wood "horses" in foreground were used to raise bottom off ground for riveting. View looking North West. October 23rd, 1912



The tanks in various stages of construction. Tank #1 with on the ground and starting row of plates, Tanks #2, with two tiers of side plates installed. View North with American Oriental Co. Refinery and their wharf. Detail of refinery and tank #2 shown below. Mountain Cooper Smelter in hill behind refinery with main building and tall smoke stack. October 23rd, 1912





Bottoms for Tank #3 & #4 under construction. Bottom plates are riveted together. Bottom is elevated so man can get underneath to close the rivet. Pipe across the bottom and above the workers is an air line for the rivet hammer. 70' dia. x 30' hi. View looking west with Martinez in background. October 30th, 1912



Tank #1 left & #2 right under construction. Tank #1 having fourth pass of side installed. Pipe across between the tanks above the workers is an air line for the rivet hammer. View looking North East with wharf of the American Oriental Company through trees. October 30th, 1912



View looking north, Tanks #1 thru #4 under construction. American Oriental Company refinery in background. October 30th, 1912.



Detail of second tier Tank #2, train on mail line track with view of American Oriental Refinery and the Mountain Copper Smelter in the far distance. View looking North East. November 11th, 1912.



View looking north west. Office building left corner of fenced area north side of the main road. New boiler house foundation under construction. Wharf center, rear of photo. Docked Santa Fe Ferry "Onward" left rear. November 10th, 1912.



View looking North. Filling Shed foundation under construction by railroad siding. Edge of Tank #1 far right. Long Wharf of the American Oriental Refinery in back ground. November 10th, 1912.



View looking East. Bottom of tank #6 being riveted. Two men with forges and two men inserting rivets in to tank bottom. There are two men under the bottom plate to help in the riveting operation. Road is on the other side of fence. Land in the background is still ranchland and had not yet been purchased for the new refinery. November 11th, 1912.



View looking North West. Retaining wall being constructed behind new Dormitory foundation under construction. Old ferry 'Onward' in background. November 11th, 1912.

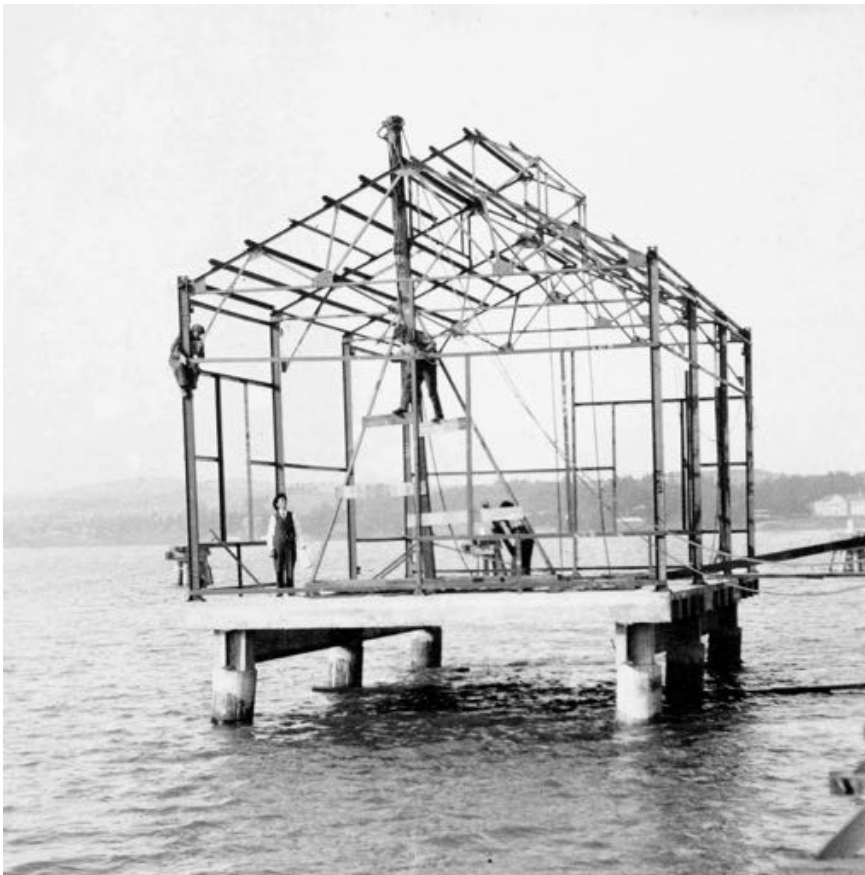




Concrete Mixer next to future 30' x 30' boiler house. View looking West. November 11th, 1912



Bungalow nearing completion across road from office. View looking South East. November 11th, 1912



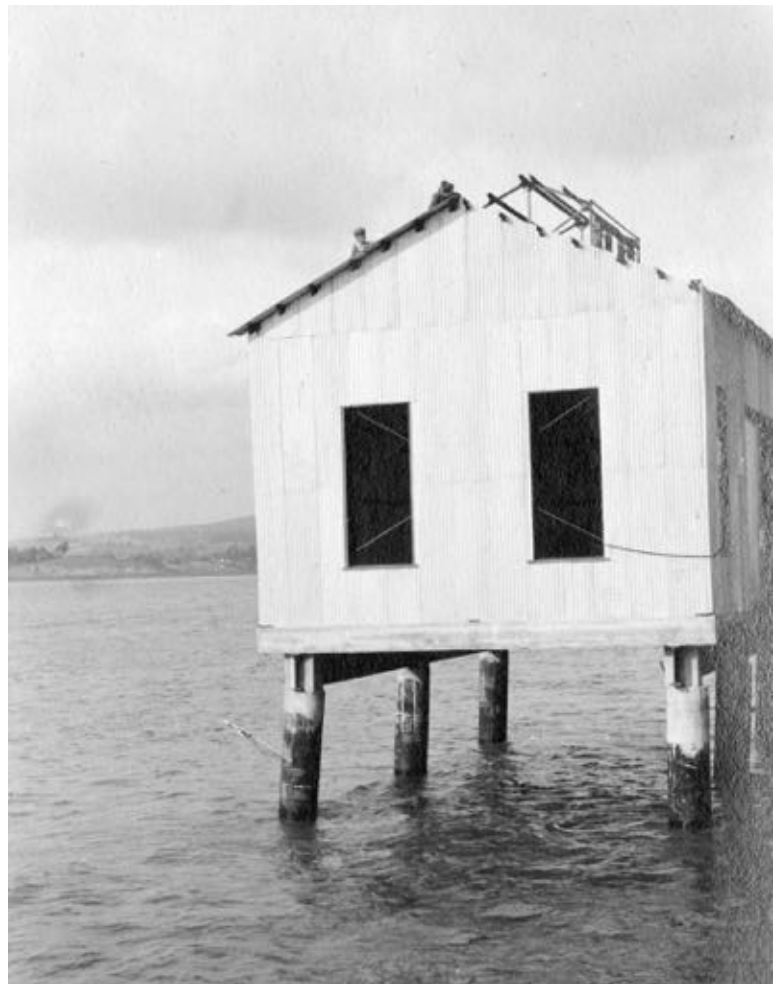
Left:

Boiler House under construction at north-west end of wharf. View looking North West from Wharf.

November 11th, 1912.

Right;

Wharf Boiler House 25' x 45' under construction at west side near end of wharf. View looking North. December 1st, 1912.





View looking north east six tanks in various stages of construction. Road in foreground will become Marina Vista. American Oriental Petroleum behind trees on left. November 10, 1912.



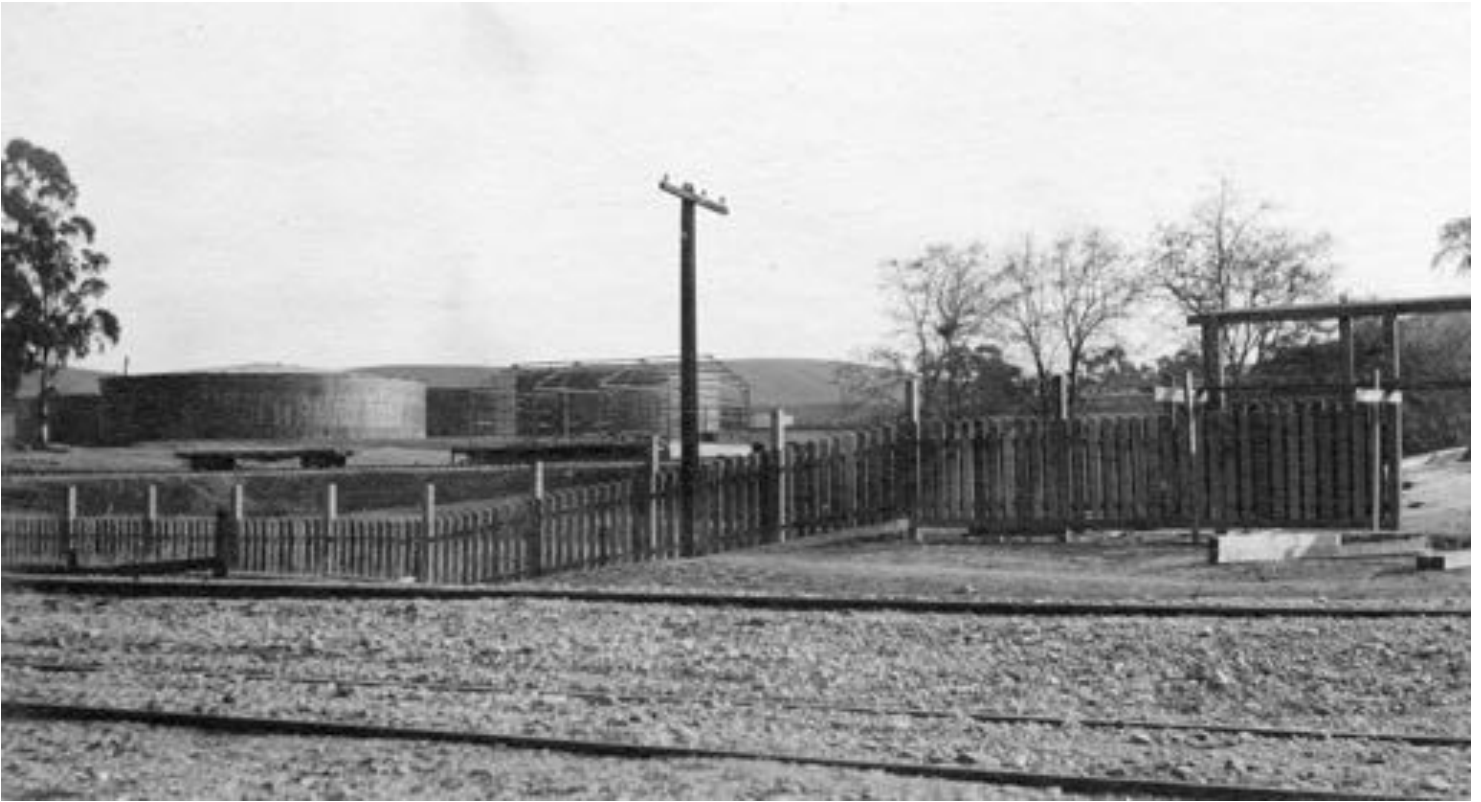
Filling Shed under construction. Tanks #1 with roof, Tanks #2 thru #6 in various stages of construction. View looking East. Empty hill in background to be location of future refinery in 1915. December 1st, 1912



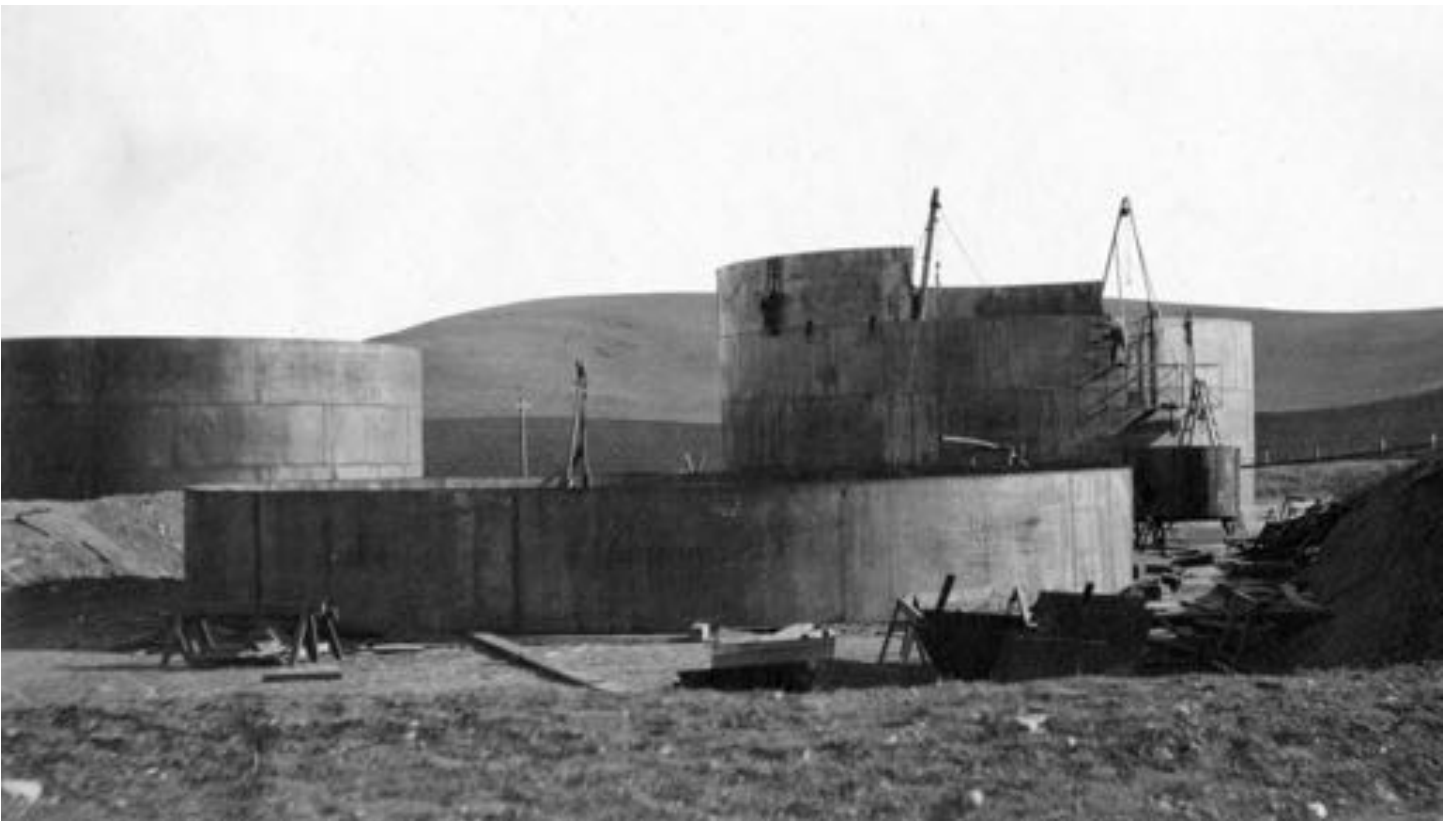
The six tanks in various stages of construction. Tank #1 with roof installed, Tanks #2, #3 & #4 ready for roof, Tanks #5 & #6 with sides still being erected. View looking North East. December 1st, 1912



Office in place, Boiler House under construction, and Dormitory. Wharf with Pump House and Boiler House. View looking North. December 1st, 1912



Fence with Gate across road. Tank #1 thru #4 and Filling Shed under construction. View looking South East. December 1st, 1912



Tank #5 with first tier of side installed, Tanks #6 with fourth tier still being erected. View looking East. December 5th, 1912



The six tanks in various stages of construction. Tank #1 with roof being installed, Tanks #3 & #4 ready for roof, Tanks #5 & #6 with sides still being erected. View looking North East. December 5th, 1912



Detail from above view. The American Oriental Refinery at Bull's Head North East of Shell property. View looking North East. December 5th, 1912



Piping being installed between Tanks #1, #2 & #3. Tanks under construction. View looking North East. December 5th, 1912



Panorama view office foreground, 30' x 30' Boiler House and Dormitory under construction, Wharf with two buildings. View of Benicia across river looking North. December 5th, 1912.



Dormitory under construction. View looking north west. December 5th, 1912.



View looking south. Bungalow, entrance gate and office. View looking South West.  
December 5th, 1912





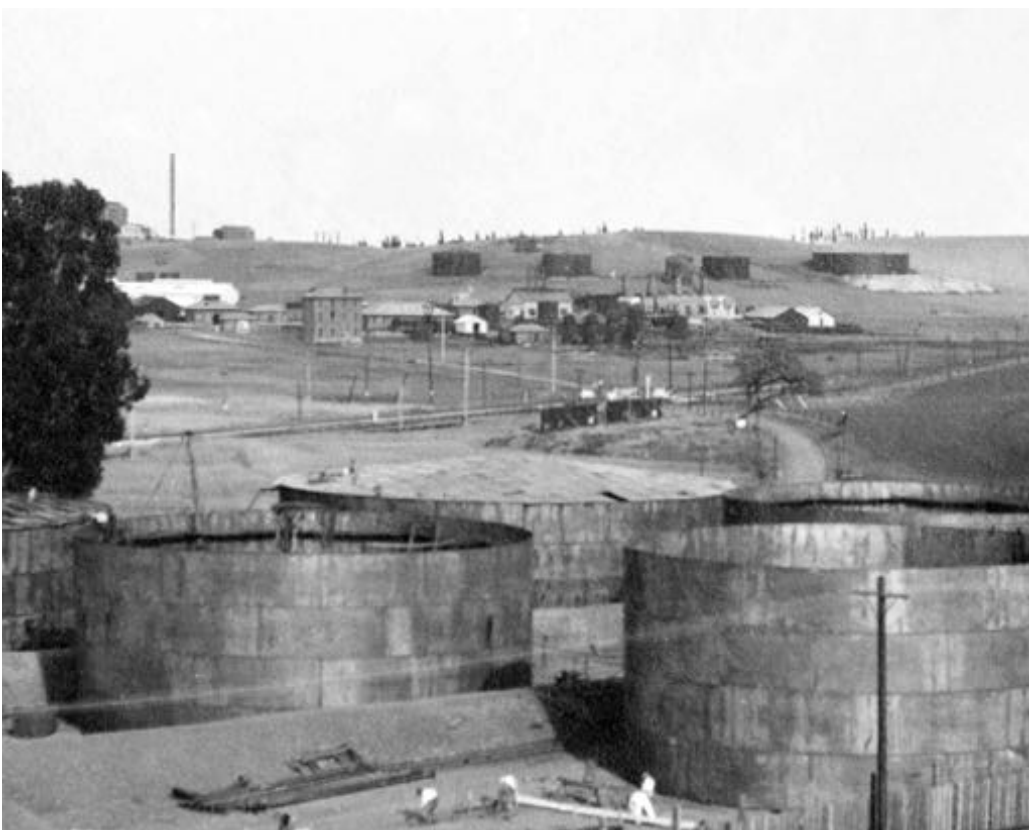
Panorama View looking North West. Boiler House, Start of Filling Shed and 1st pass of side on Tank #5. View of river with end of Wharf looking North West from fence at road. December 5th, 1912



Filling Shed, railroad siding and part of Tank #1 with roof installed. Tanks View looking North East with American Oriental Refinery wharf in distance. December 21st, 1912



Six tank under construction. All sides completed, tank #1 & #2 to rear have roofs installed. The American Occidental refinery visible behind the row of trees. View looking north east. December 15th, 1912.



Detail on left. The small American Occidental refinery visible behind the row of trees. Tanks #3 and #5 in foreground tank #2 with roof. Tank #4 to right of tank #3. View looking north east.

December 15, 1912.



Wharf and Filling Shed left of tanks nearing completion with roofs being installed. Tanks #5 and #6 close to road. View looking north west. December 15th, 1912



Roofs being installed on Tank #1 and #2. Tank#5 and #6 by road at sharp bend. American Occidental refinery wharf in distance. View looking north. December 15th, 1912



Roofs being installed on tanks. View looking north east. December 15th, 1912



Filling Shed and Tanks view from wharf. View looking East. December 15th, 1912



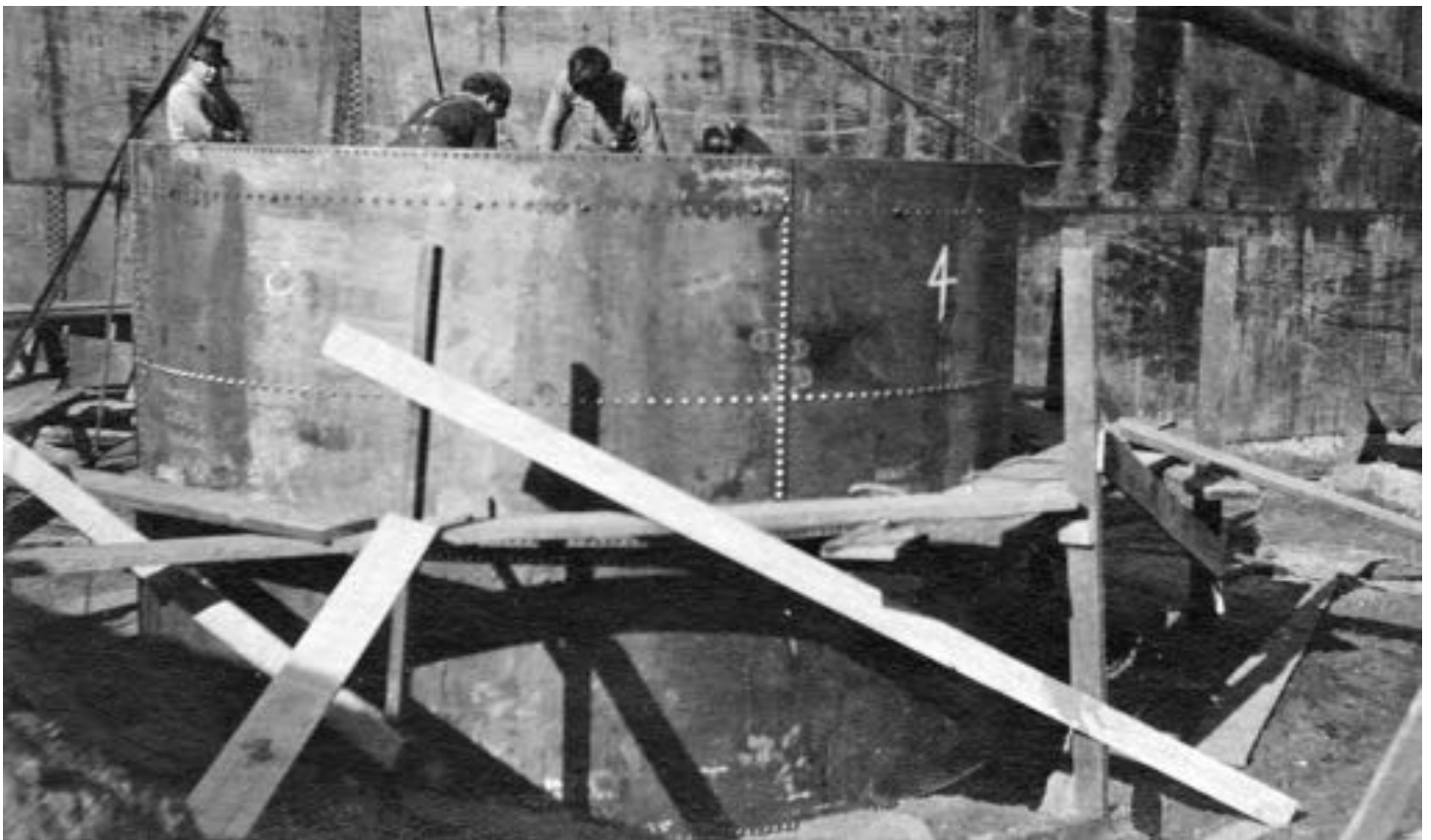
Detail from below. Wharf with pump house and boiler house. View across river showing Benicia Arsenal buildings. December 21st, 1912



General view looking North from front of Bungalow. Boiler House, Dormitory and Wharf. Ferry 'ONWARD' in mud flats left of Boiler House. Benicia across river behind Wharf. December 21st, 1912



Tanks #1 thru 6 nearing completion. Roofs being installed. View looking North East.  
December 21st, 1912

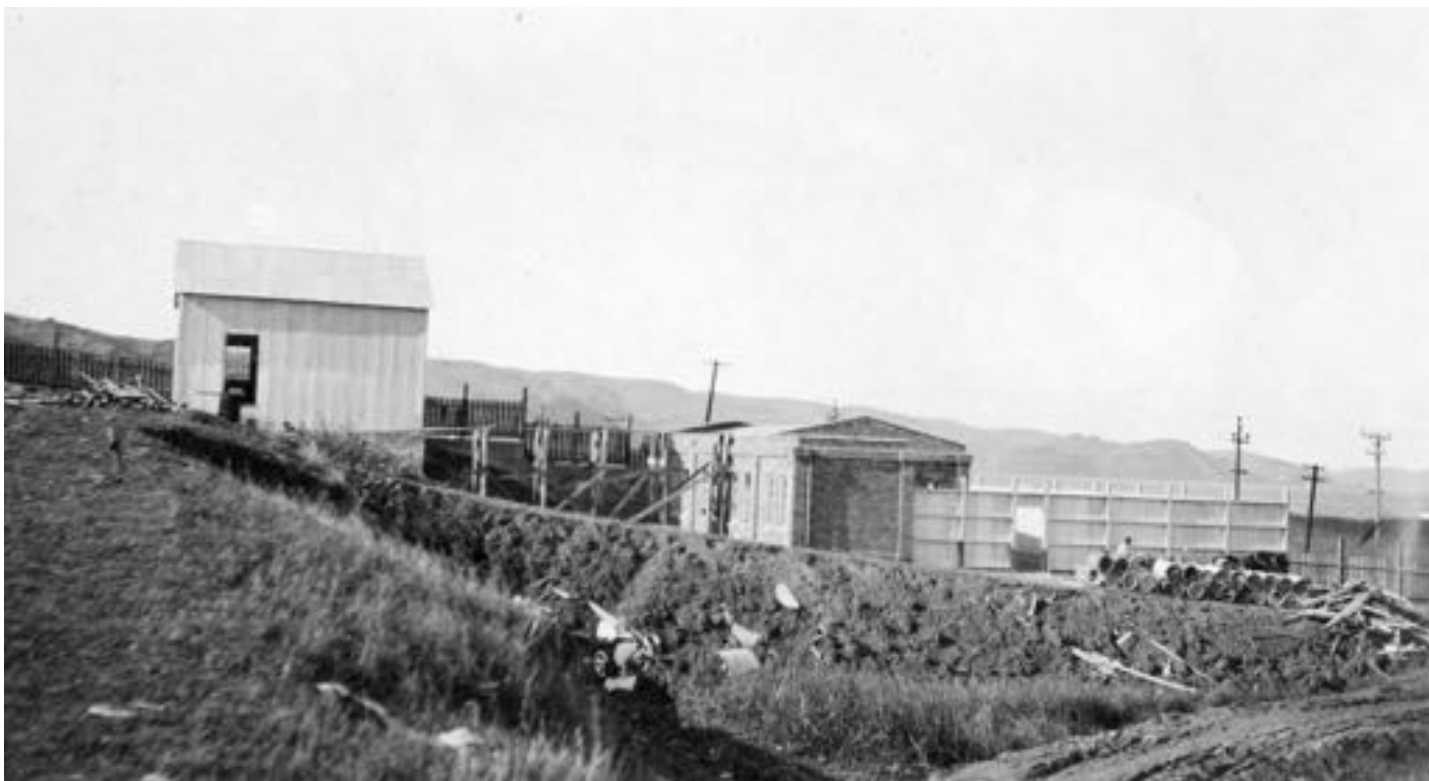


Gas holder being fabricated . View looking North East.

December 21st, 1912



Filling Shed with railroad spur. Bungalow nearing completion. View looking South West.  
December 21st, 1912.



30' x 30' Boiler House, retaining wall and Dormitory nearing completion. View looking West.  
December 21st, 1912.

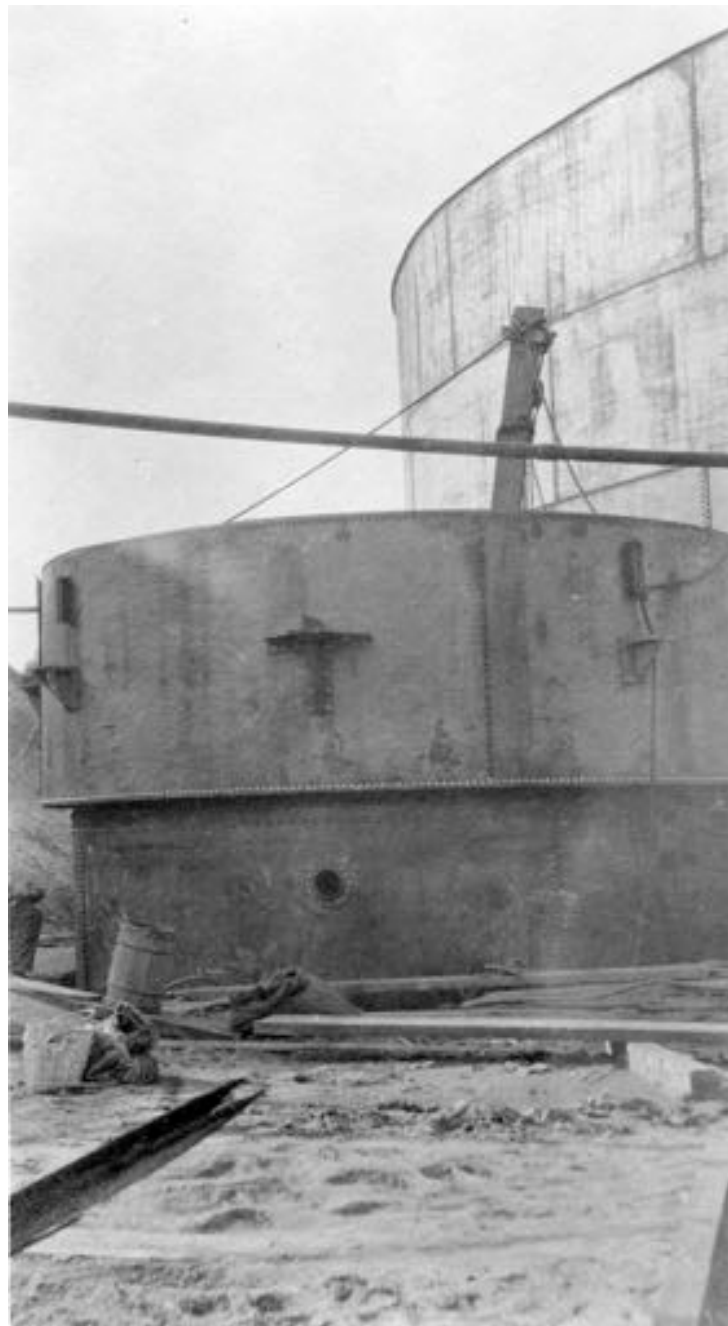
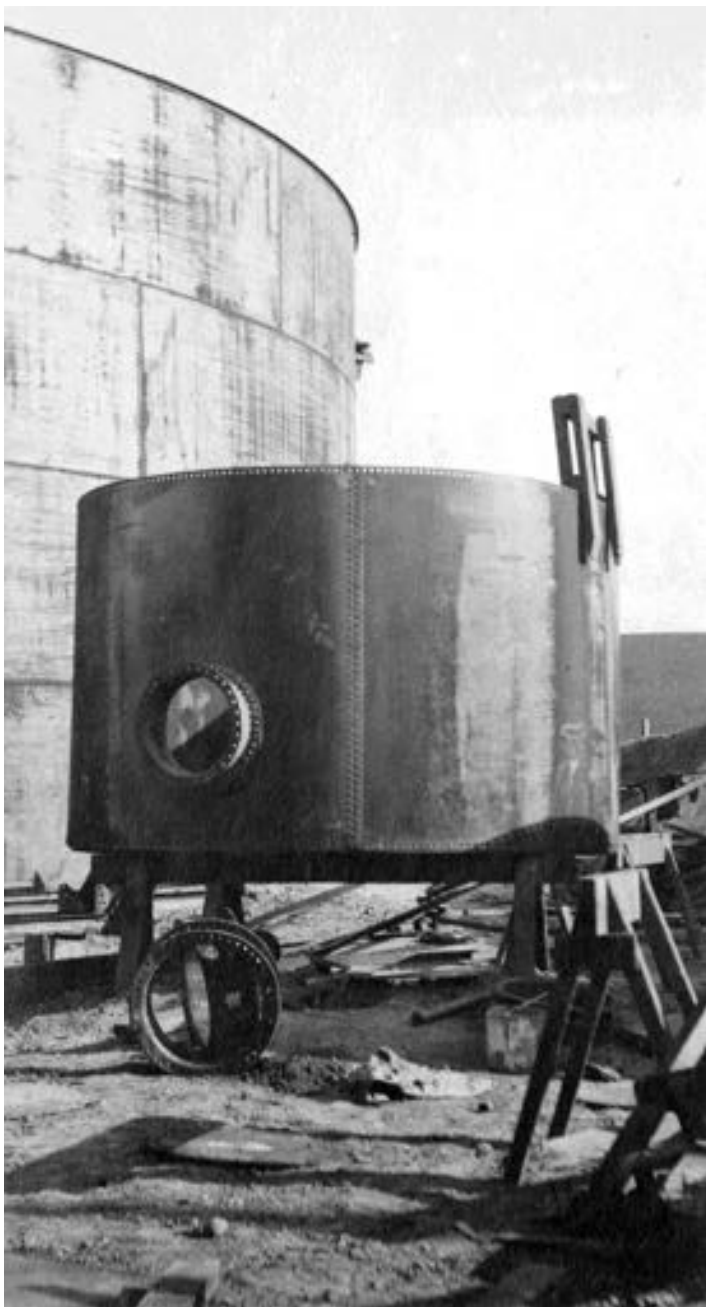


Beginning construction of foundation for 10' x 30' Service Tanks . View looking East.  
December 21st, 1912



The six tanks in various stages of construction. Tank #1 thru #4 with roof installed, Tanks #5 & #6 ready for roof. Service Tanks foundation completed. The American Oriental Company refinery in the background and the smoke stack of Mountain Cooper smelter. December 27th, 1912





Above:

Gas Holder under construction to the west of tank #5. January 2nd, 1913

Left:

Settling Tank under construction. Tank being riveted, still elevated to do bottom section. View looking East. January 2nd, 1913



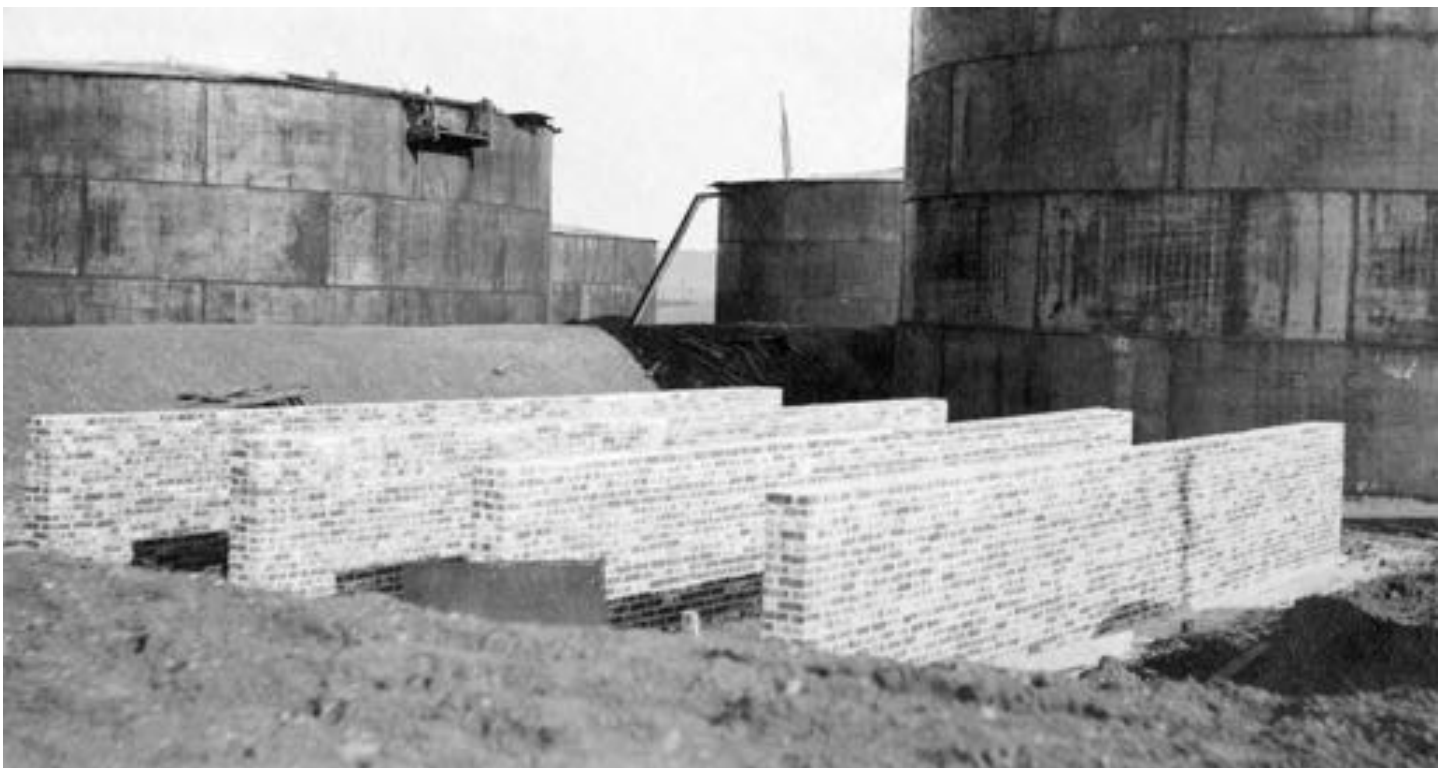
Five Tanks with roofs, Service tanks foundation north west of tank #5. View looking North East. With the American Oriental Company refinery in background and Mountain Cooper smelter in far distance. January 2nd, 1913



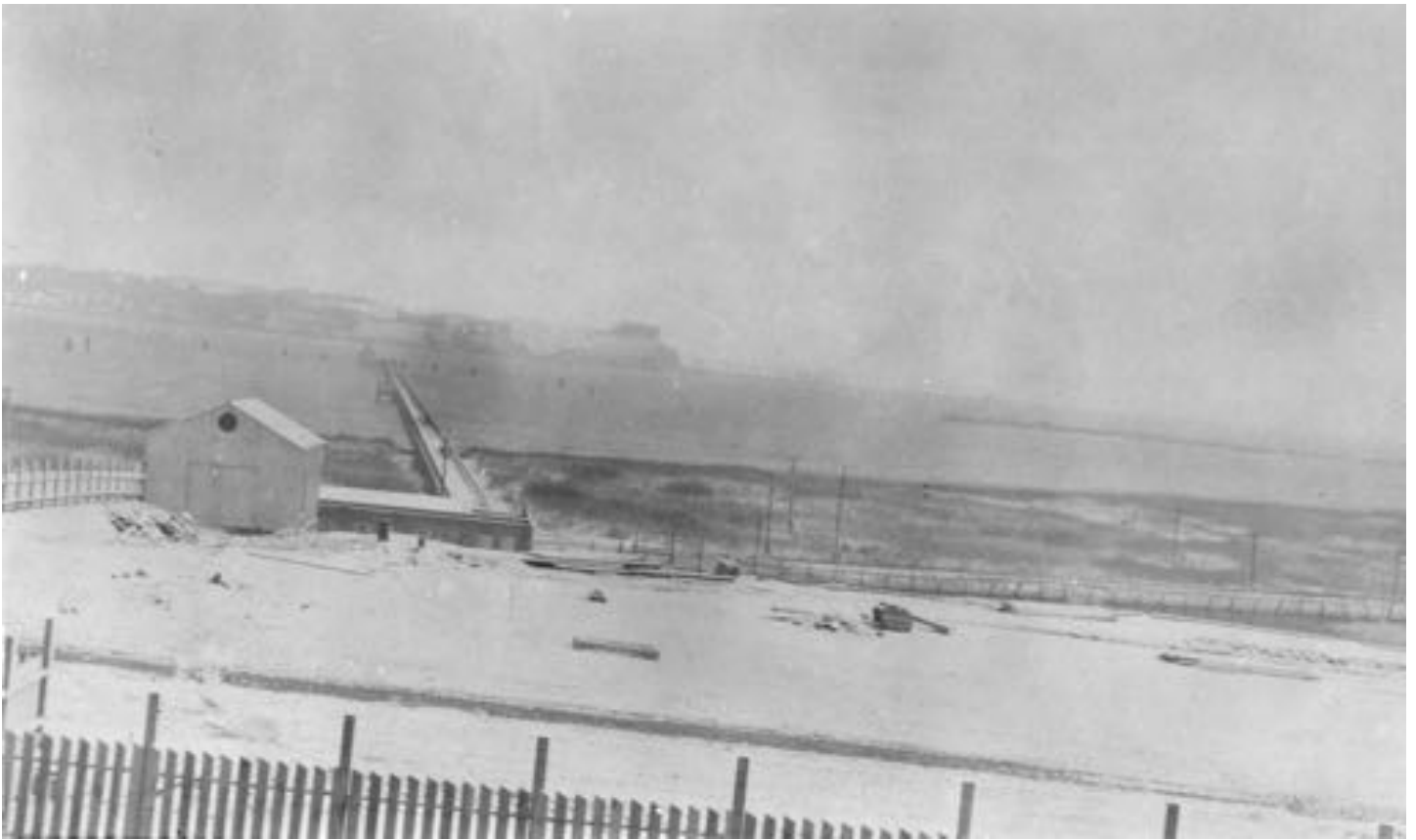
Service tanks foundation completed with Boiler House, ferry boat 'Onward', wharf approach and Filling Shed in distance. Edge of Tank #5 far right. View looking West. January 2nd, 1913



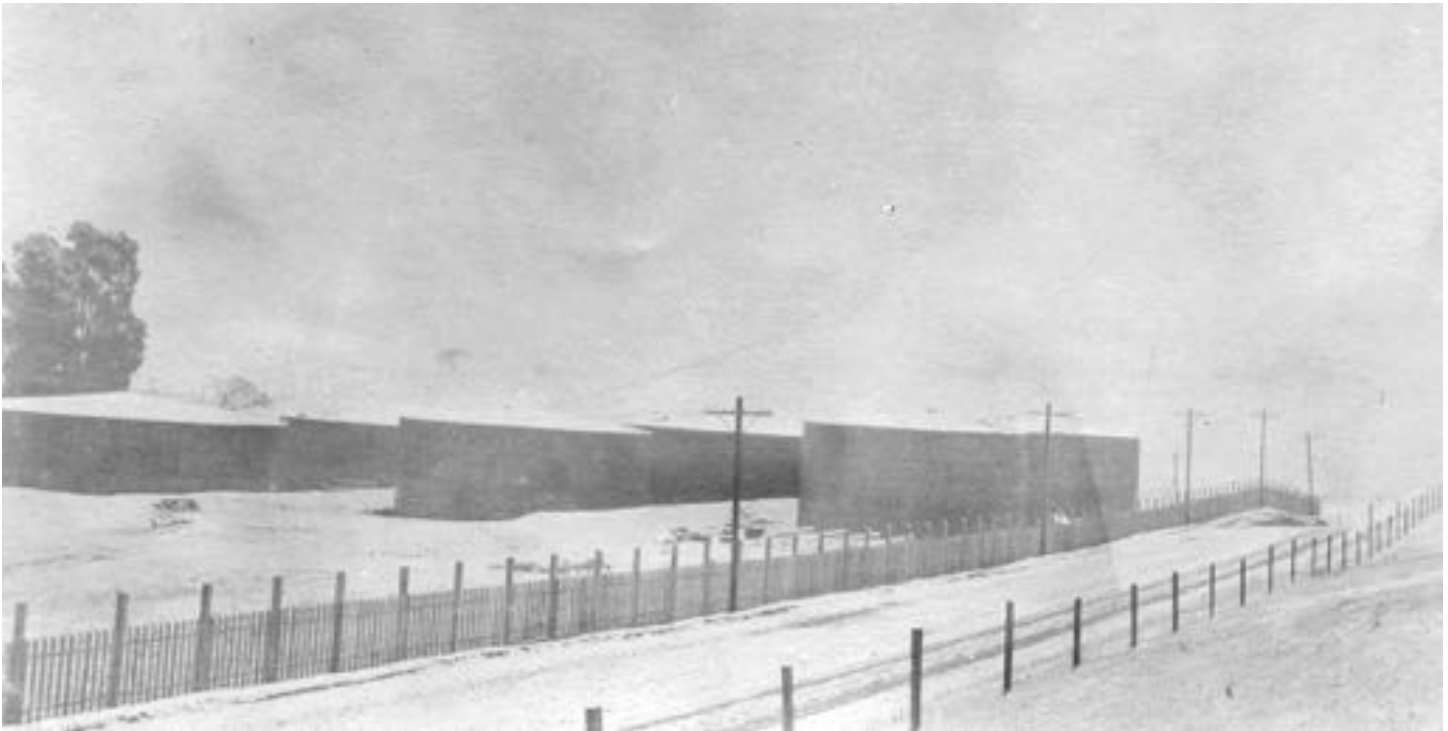
Finished Manager's Bungalow. View looking East. January 2nd, 1913



Service Tanks Foundation in foreground. The tanks i#2, #3, #4 & #5 in various stages of construction. Looking North East. January 2nd, 1913



Boiler House, Dormitory and Wharf covered with snow. View looking North across river from road.  
January 8th, 1913



Tanks covered with snow. View looking North-East from near Bungalow across road. January 8th, 1913



View of Dormitory and Wharf End 30' x 30' Boiler House in Snow. View looking West. January 8th, 1913.



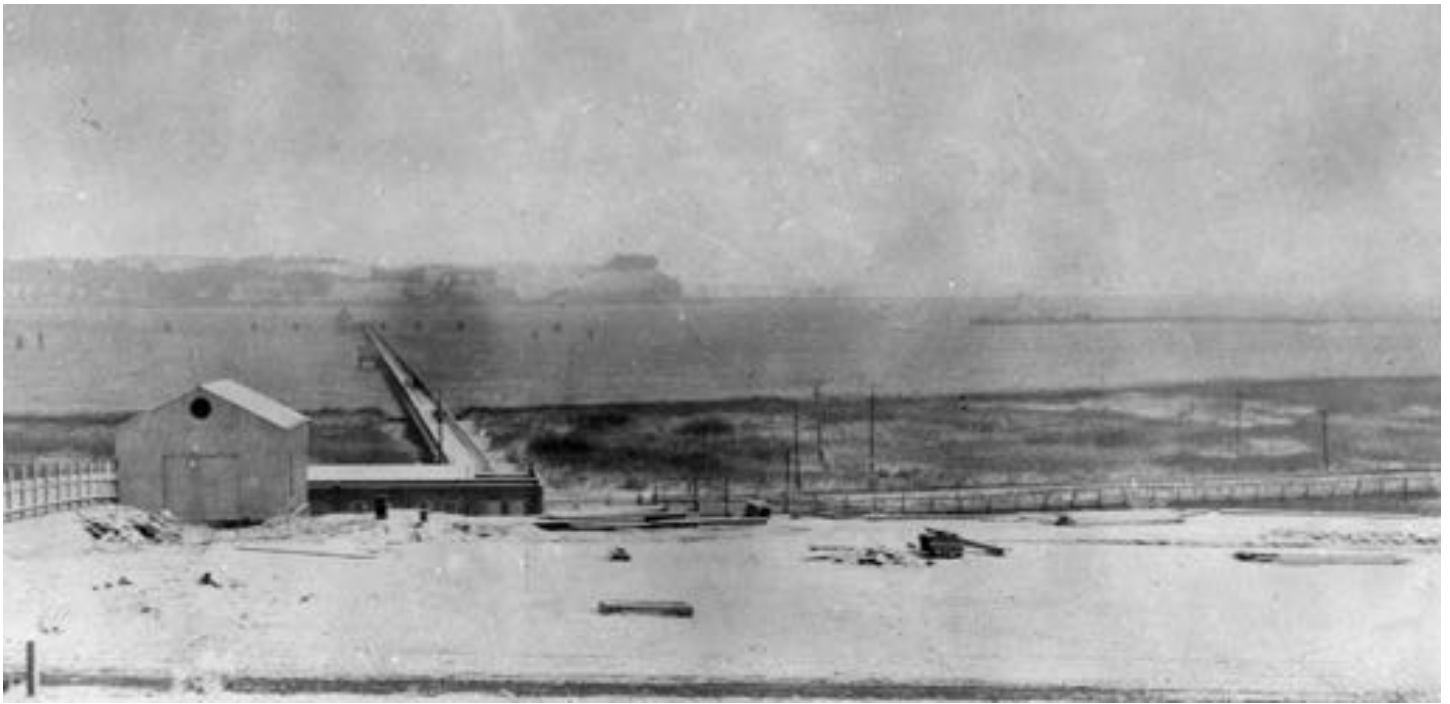
Filling Shed and Tank #1, covered in snow. View looking North East. January 8th, 1913.



Office, gate and Bungalow covered in snow. View looking South West. January 8th, 1913.



Six storage tanks and ground covered in snow. View looking east. January 8th, 1913.



View looking North across river during snow storm. Dormitory and shore Boiler House at Wharf approach. January 8th, 1913



The six tanks covered in Snow. View looking East from Office. January 8th, 1913



View of Wharf looking North from Boiler House. Benicia Arsenal building across river from wharf. January 17th, 1913

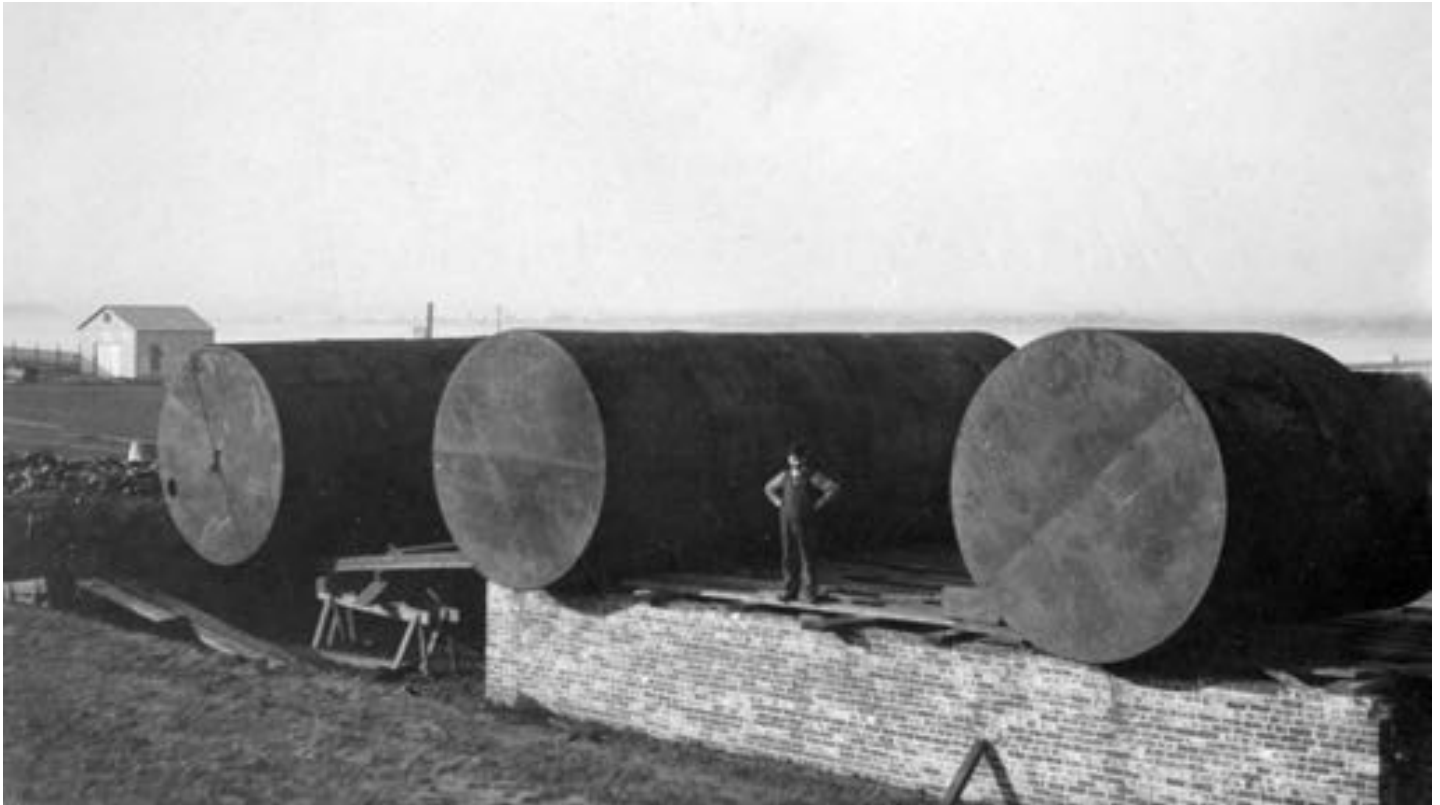
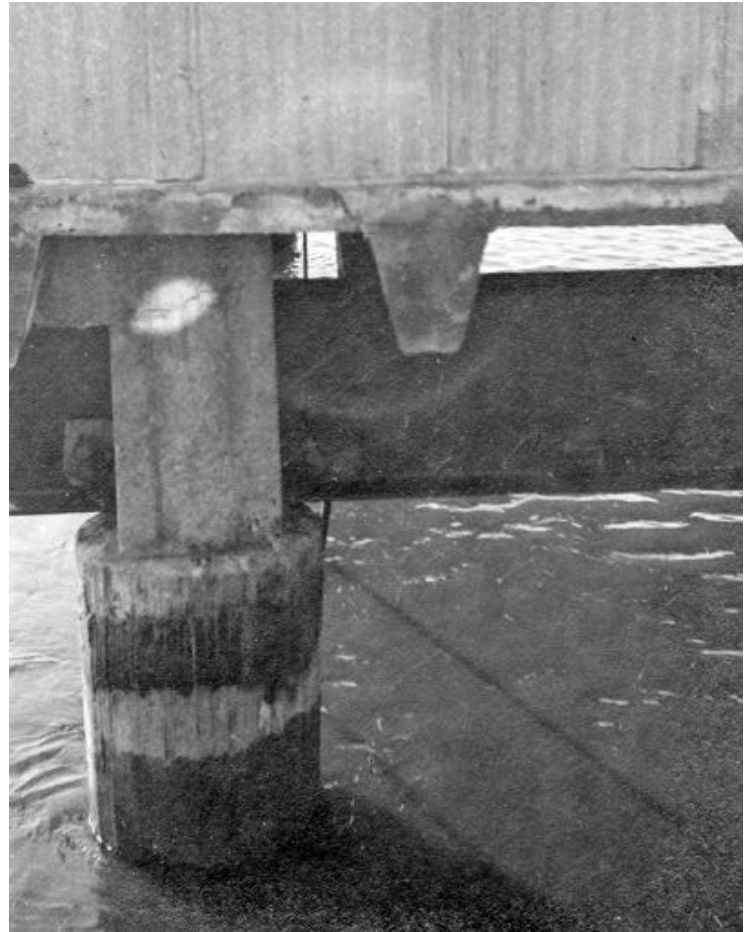


Finished 25' x 45' Wharf Boiler House. View looking North from west side of Wharf. January 17th, 1913



Right;

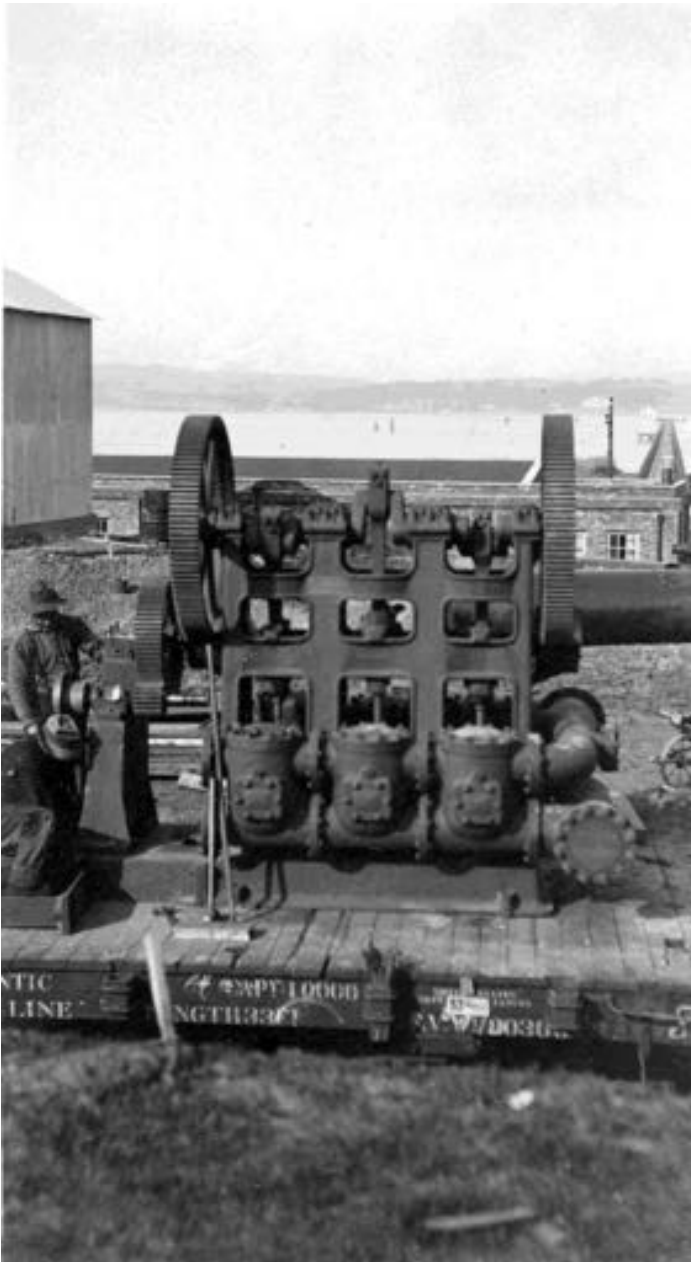
Detail of a fractured pile at the Wharf Boiler House near end of wharf. View looking West. January 17th, 1913.



Installing Service tanks next to Tank #5. January 19th, 1913

Left:

Water Service pump being unloaded from flat car on siding by shore Boiler House. View looking North. January 22nd, 1913.



Right:

Wharf Boiler being moved inside Wharf Boiler House. View looking North from inside building. January 22nd, 1913.





Placing boiler in Wharf Boiler House, from north end of building. View looking west. January 22, 1913.



Placing boiler in Wharf Boiler House, from north end of building. View looking west. January 19, 1913.



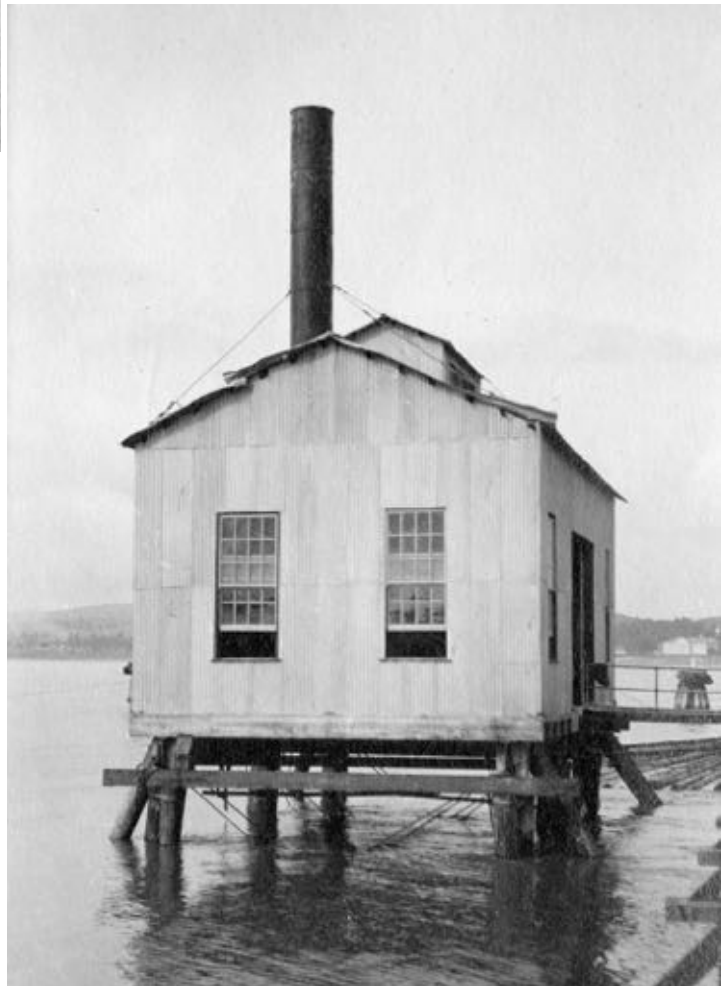
Left:: Building the run for the main Pipe lines behind tanks #1 and #2. View looking east. January 24th, 1913.



Right:  
Installing 6 inch Drain Line from between tanks. View looking North. January 24th, 1913.



Right: Finished 25 ft x 45 ft Wharf Boiler House with boiler. View looking south west from west side of wharf. January 24th, 1913.



Right: Finished 25 ft x 45 ft Wharf Boiler House with boiler. View looking North from west side of wharf. February 9th, 1913.

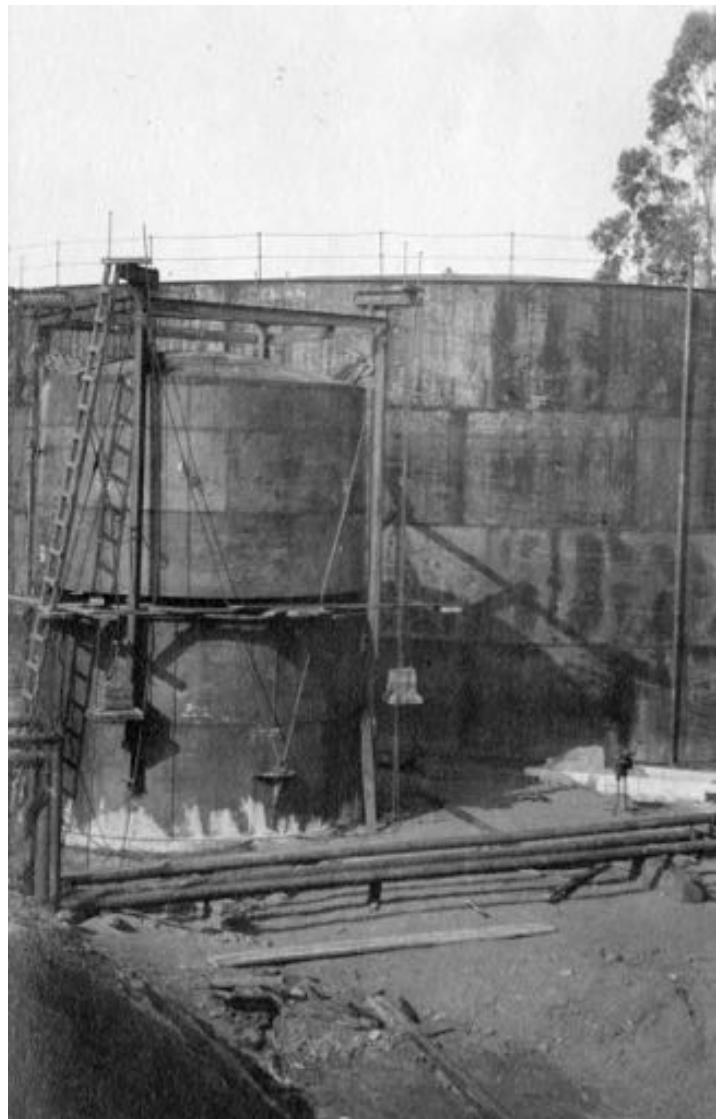


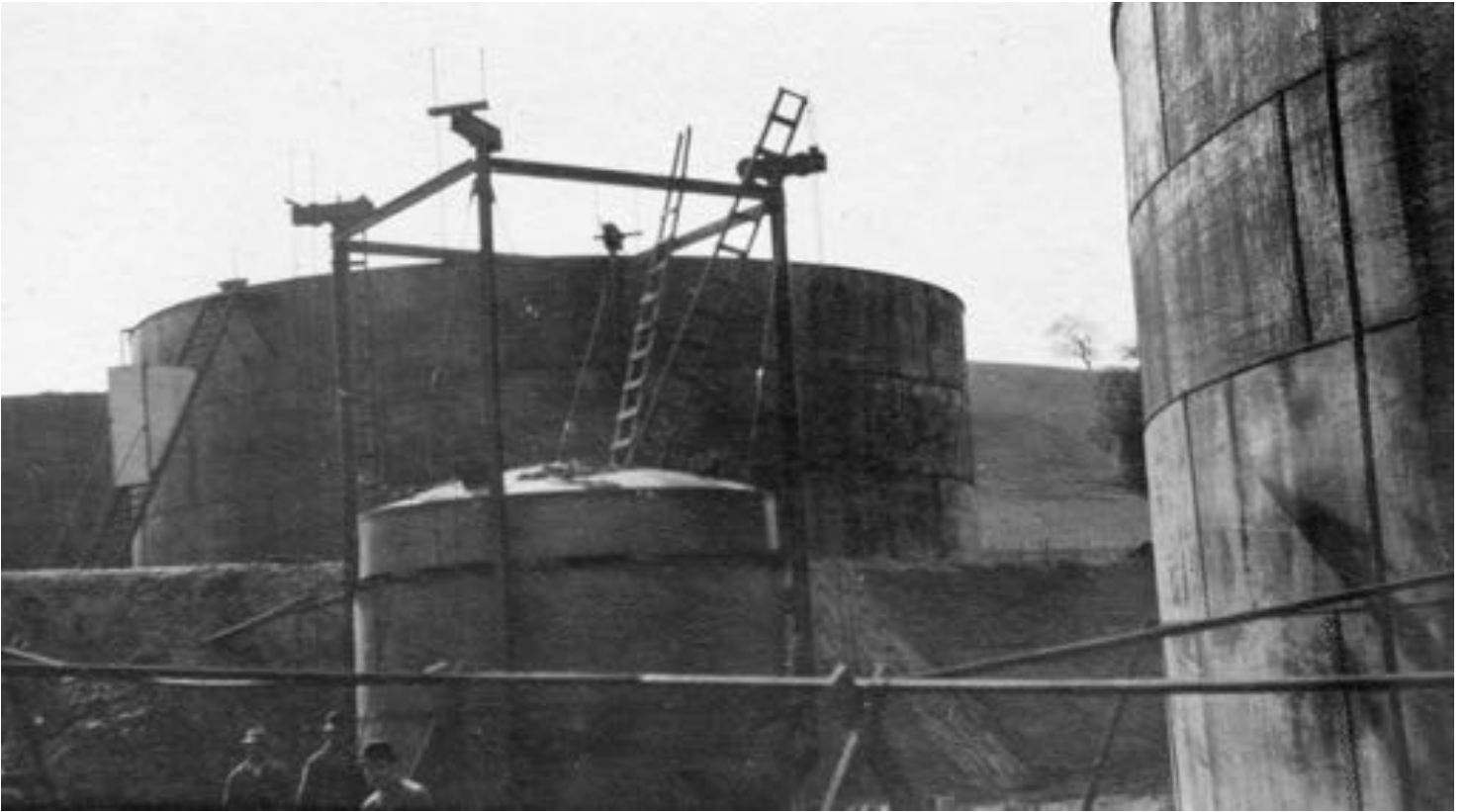
Left:

Piping between Tank #1 and Tank 2. View looking North. February 9th, 1913.

Bottom:

Gas Holder under construction by Tank # 2. February 9th, 1913





Right:

Gas Holder at Tank #6. Temporary pipe across front of photograph is air line for riveting. View looking South East. February 9th, 1913.



Left:

Installing Pipe Lines at Tank #5 & Tank #6. View looking North. February 9th, 1913.

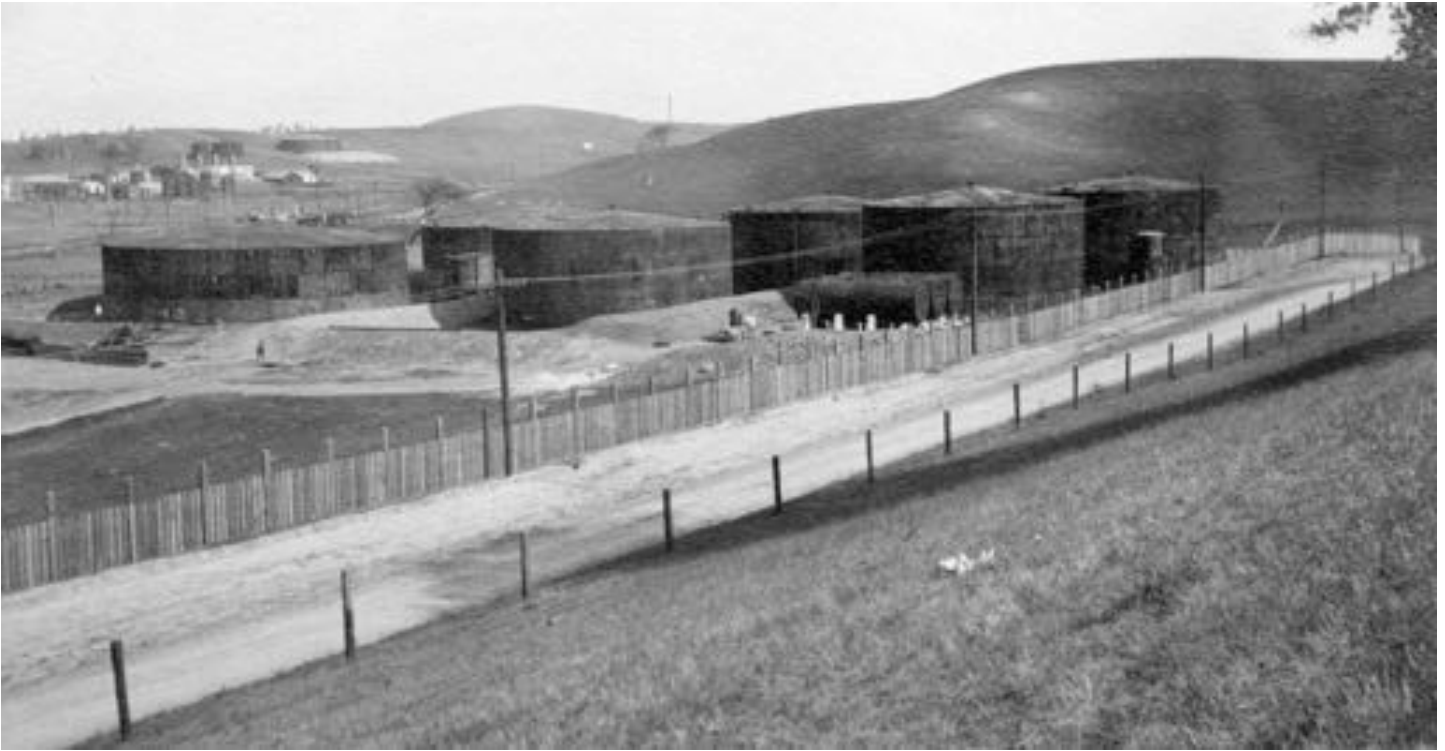


View of tanks by shore with open rolling hills behind. Looking South East. February 9th, 1913



The six tanks with roofs installed. Family looking through fence at progress. Could be talking to worker. Road between the two fences is future Marina Vista. February 9th, 1913.

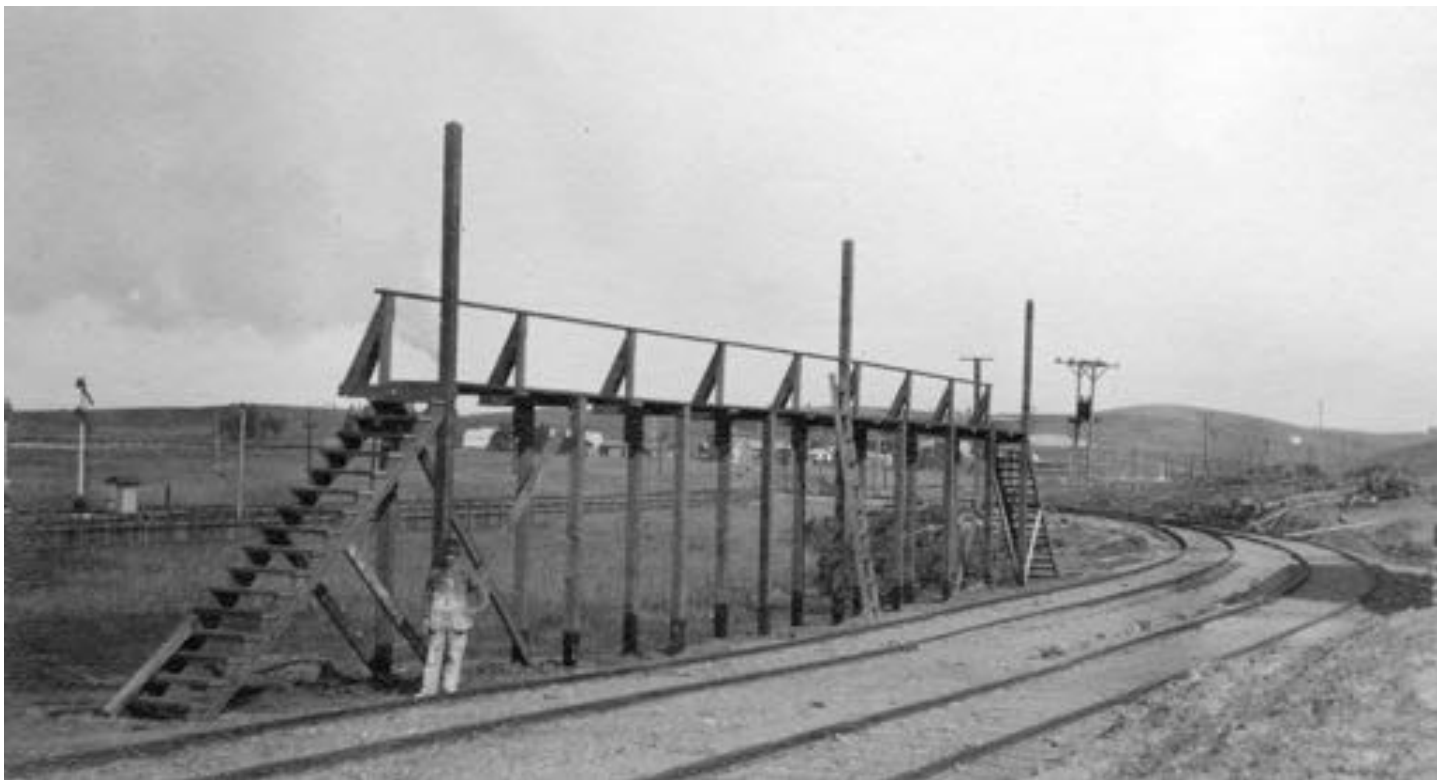




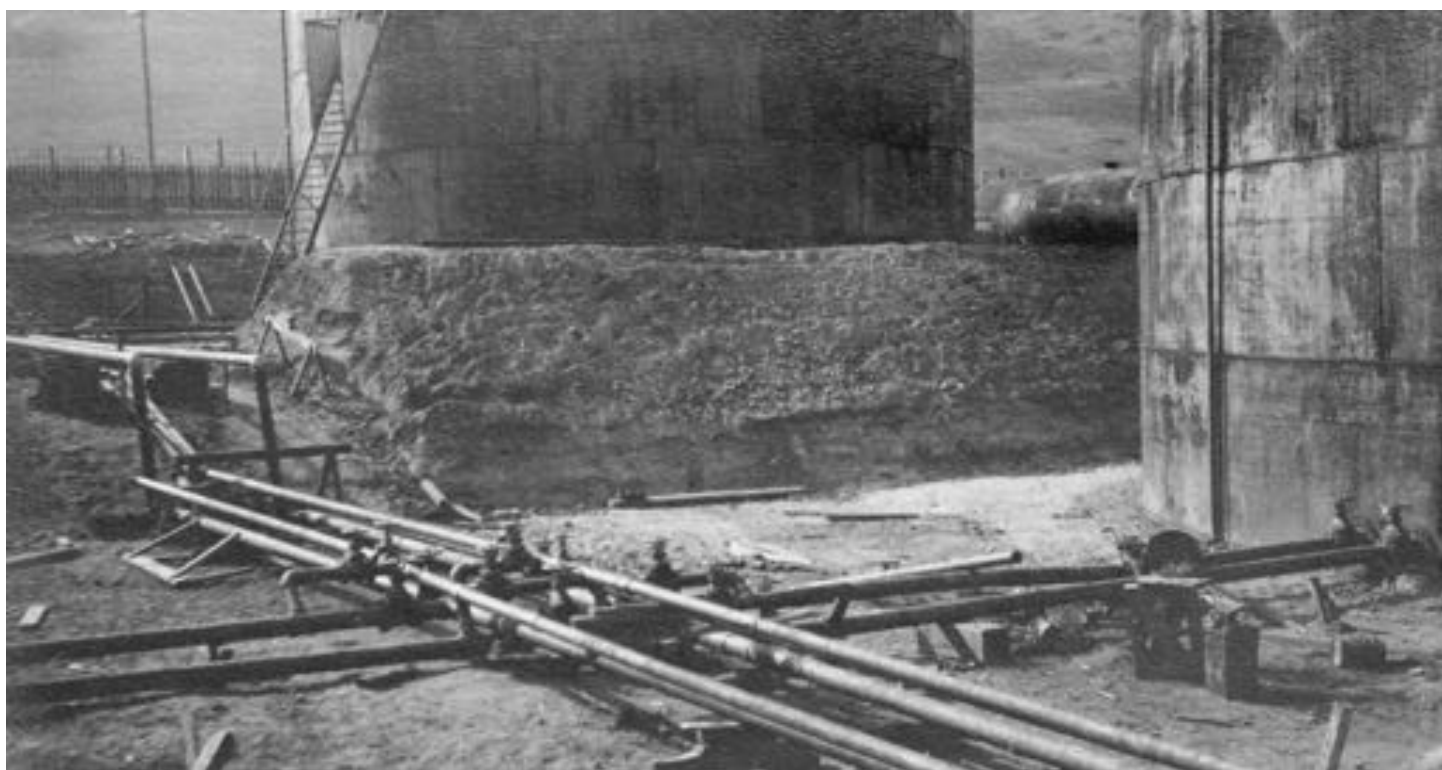
The six tanks nearing completion. All roofs installed, and three Service tanks in place near road. Road is future Marina Vista east of Wharf end and just before the left curve. View looking north-east at American Oriental Refinery at Bull's Head and rolling hills of the future refinery site. February 15th, 1913



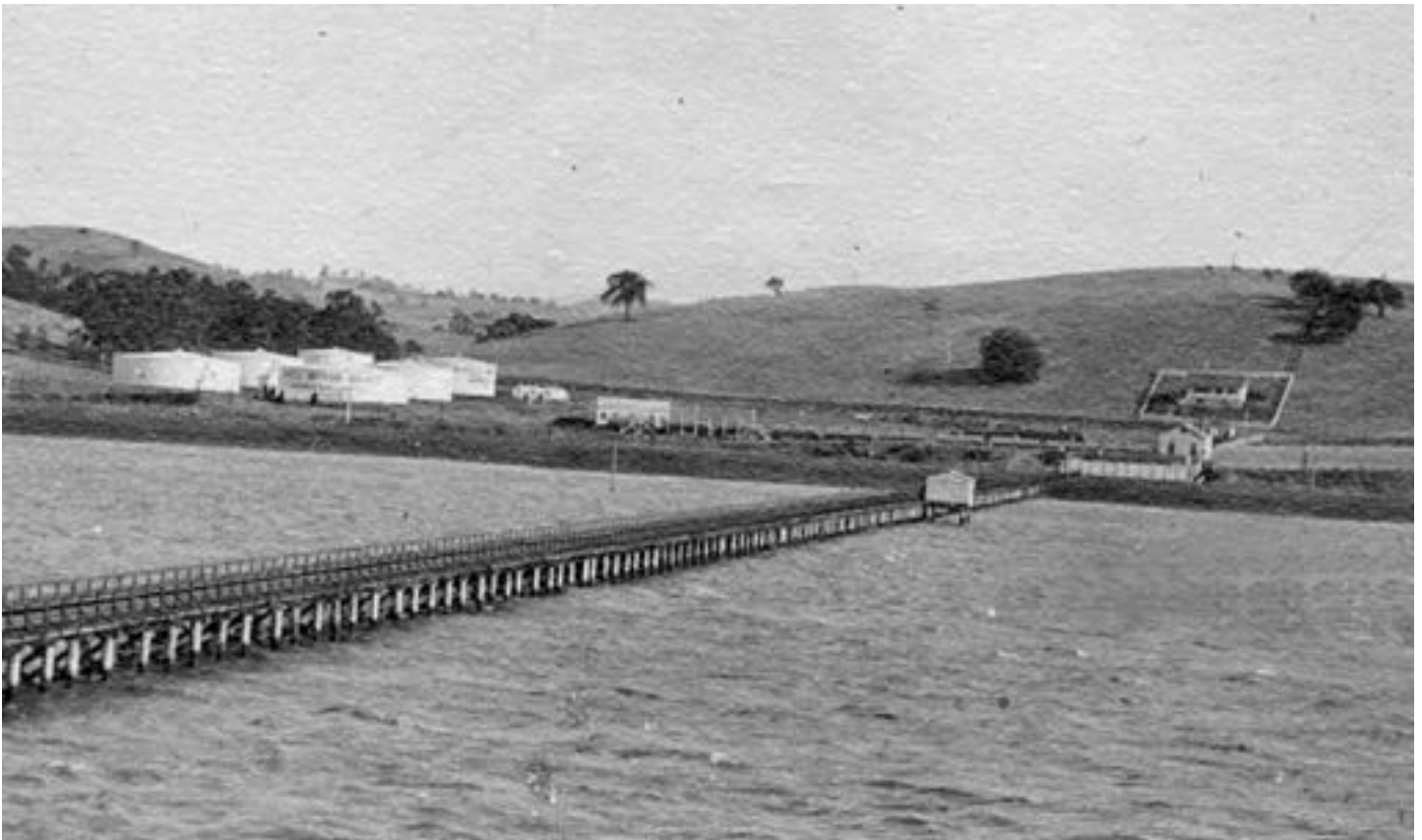
Detail looking north-east at American Oriental Company Refinery at Bull's Head and the rolling hills of the future refinery site. February 15th, 1913



Tank Car loading rack by railroad siding. Main tracks behind rack, View looking East with American Oriental refinery in the background. February 15th, 1913



Pipelines between tanks. View looking South. February 15th, 1913



View of shoreline with product tanks, bungalow and facilities. Tank #1 at water edge marked "SHELL MOTOR SPIRITS" . This is detail from photo below. June 16th, 1913



View of Wharf as taken from the S.S. J.B.A. Kessler. June 16th, 1913



Tanker S.S. J. B. A. Kessler docked at Martinez wharf with the first shipment of "Shell Sprits" from South East Asia. June 16th, 1913



SS J.B.A. Kessler at Shell Wharf unloading first shipment from Sumatra with line of tank cars on siding, June 16th, 1913.



Panoramic view of the new Tank Farm Area from hill across road, looking North-West. Far left boiler house, Dormitory with train of tank cars on siding by loading rack. Filling Shack center in front of tank cars. Tank #5 by fence with SHELL MOTOR SPIRITS on tank. (Photo not in scrapbook.) June 16th, 1913



Messenger arriving at the SS J.B.A. Kessler. View of Wharf and Boiler House from the ship. June 16th, 1913



The finished Tanks, Filling Shed, Loading Rack, rail tank cars, Office, Bungalow and Dormitory at lands end of Wharf. View looking South East from Wharf. June 1913.



View of shoreline from wharf showing the six finished storage tanks, filling shed, tank car loading rack and line of tank cars. View looking south. June 16th, 1913



Left:

Tank Water Spray arrangement. Possible tank cleaning operation to finished tank #5. View looking West. Circa Spring 1913.



Right:

Tank Water Spray arrangement. Possible tank cleaning operation to finished tanks. Boiler House, Dormitory and end of Filling Shed in the background. View looking West. Circa Spring 1913.



Left:

Tank Water Spray arrangement. Possible tank cleaning operation to finished tank #5. View looking North West.

Circa Spring 1913.



Right:

Tank Water Spray arrangement. Possible tank cleaning operation to finished tank #5. View looking West. Circa Spring 1913.



## APPENDIX I

### CAPITAL ACCOUNTING ASSET SUMMARY LEDGERS, 1912 - 1913 DEPOT INSTALLATION FROM ORIGINAL LEDGER

Boiler House	\$8,146.50
Bungalow, Managers	\$2,680.23
Dormitory	\$5,001.43
Filling Shed	\$2,930.63
Foundations and Embankments	\$12,413.18
Fresh Water Reservoir	\$5.00
General Construction	\$15,621.47
Land: GE Gordon letter, transfer to land account	\$8,425.22
Lines and Connections	\$15,521.11
Machinery	\$7,449.47
Office	\$839.79
Railroad Siding	\$4,349.05
Tanks	\$62,087.55
Telephone	\$45.00
Tool House	\$34.03
Walls & Fences	\$2,405.95
Water Pump House	\$2,638.07
Wharfs, Piers & Dolphins	\$17,211.64
Winch Shed	<u>\$18.82</u>
Total =	\$167,824.14

## APPENDIX II

### IMPORTANT DATES IN THE HISTORY OF OIL

#### AND ROYAL DUTCH - SHELL OIL CO.

- 1830 Marcus. Samuel begins a small trading company to trade between London and South East Asia. Taking finished goods from England and brings back sea shells and other raw products.
- 1846 Abraham Gesner produces Kerosene from the distillation of coal.
- 1850 James Young heated bituminous coal to produce oil and paraffin wax and a paraffin lamp oil.
- 1855 Prof. Benjamin Stillman, Jr. head of Chemistry at Yale University issues a report after detailed analysis of samples of Pennsylvania Oil forecasting the major product that can be made from oil. Among his findings he indicates lamp oil for illumination, paraffin wax for candles and the developments of lubricants. This report generates the exploration for oil.
- 1859 Drake finds oil in Pennsylvania after drilling 72 feet. Starts the Pennsylvania Oil boom. Proved that it was possible to drill for oil and find it.
- 1861 First oil well drilled in California in Humboldt County. Did not develop into a producing well.
- 1863 John D. Rockefeller forms an oil company near Cleveland, Ohio. From this beginning the great Standard Oil Company is born.
- 1874 Marcus Samuels dies and his two sons, Marcus and Samuels take over the company.
- 1877 The Nobel brothers build the first modern tanker to move Russian oil.
- 1880 Alileo Janz Zijlker, superintendent of a Dutch tobacco plantation in Langkat on the east coast of Sumatra finds a light kerosene like oil floating on a island pool. It is analyzed as 60% lamp oil. He obtains a lease to explore for oil.
- 1882 Zijlker goes to Holland to raise capital. Forms a exploration company.
- 1883 Receives a mining concession from the Sultan of Langkat for 75 years.
- 1884 Starts drilling in Sumatra and in June of 1885 hits oil at 72 feet, gets 5 BBL/D oil flow.
- 1886 Adriaan Stoop, a young Dutch geologist goes to Pennsylvania to study the oil business. Produces important report detailing all aspects of oil from prospecting, to sales, including local laws covering the oil business.
- 1887 - 1889 Well on Sumatra continued to produce, now reaches 164 bbl/day.
- 1889 Zijker returns to Holland. On board ship meets N. P. Van den Berg, a banker, who agrees to form an Oil Company.
- 1890 Standard Oil Company invades Europe and South East Asia with cheap Kerosene.
- 1890 On May 8th a new company is formed. Petition King William III of Holland to use the word "ROYAL" in the name of the company.
- 1890 June 16th, the new Royal Dutch company is born.
- 1890 December 27th, Zijlker dies suddenly in Singapore.
- 1891 J.B. August Kessler named Assistant President of Royal Dutch.
- 1892 First refinery is built in Sumatra based on Pennsylvania design and produces 1600 cans (300 bbl) of Kerosene from 800 - 900 bbls of crude oil. Names the brand "Crown Oil".

- 1892 In May, Kessler becomes chief executive officer of Royal Dutch.
- 1892 August - M. Samuel & Company of London introduces its first oil tanker "S.S. Murex" for bulk shipping of oil to the Orient via the new Suez Cannel with a load of Russian Kerosene bound for Singapore.
- 1896 On July 13, Kessler hires Hedrick Deterding as his assistant and sends him to the far east to study the business and the marketing of petroleum products.
- 1897 October 18 - M. Samuel & Company organizes the "SHELL" Transport & Trading Co., Ltd. to organize oil shipment for his company.
- 1897 Deterding starts to build a Sales and Marketing department. Converts the company to bulk shipments, builds tankers and distribution hubs. Believes that there must be ample product near the point of sales.
- 1898 John Tokheim made the first gas pump.
- 1900 Kessler goes on a trip to the far East Indies, falls ill and later returned to Holland. On his way back on December 14, 1900 dies in Naples - "killed by overwork".
- 1901 Deterding becomes chief executive officer of Royal Dutch as recommended by Kessler.
- 1901 The "Shell" Transport & Trading Company, Limited of London was in a competitive position in the Indies with Royal Dutch. Moves Russian oil products in their own tankers.
- 1902 In June 1902 a three - party agreement was signed between The "Shell" Transport & Trading Company, Limited of London, the French Rothchild enterprise and Royal Dutch with Asiatic Petroleum Company, Ltd. established to act as the sole selling agent in the far East.
- 1903 Standard Oil Co. contracts with Asiatic for surplus gasoline in Asia and ships to the Pacific West Coast of the US proving that there is a market there.
- 1907 A merger between Royal Dutch, the "Shell" Transport & Trading Company, Limited of London, the French Rothschild enterprise forming a new company. Royal Dutch took a dominant role by owning 60 percent of the new holding company. This group of companies would now be known as the Royal Dutch - Shell Group. They would continue to form new companies under their control as needed.
- 1910 Standard Oil builds a refinery in Richmond, California and cancels the contract with Asiatic (Shell).
- 1910 Deterding decides to enter the American market to sell Sumatra gasoline in competition with Standard Oil.
- 1910 Attempt to form a merger with the Indian Refining Company of Lawrenceville, Ill for their eastern US markets and lube oil business and with a possibility to include Gulf Oil Company. Deterding determines that they can bring Sumatra gasoline to US for more than the merger would provide. Deal fails and did not complete.
- 1911 The US Supreme Court orders the Standard Oil Company to be broken into 33 separate companies.
- 1911 Royal Dutch Shell has now entered markets in Europe, Asia, Australia and parts of Africa.
- 1911 Deterding planned for the day Shell gasoline would be sold in America.
- 1911 Deterding sends H.R. Gallagher to San Francisco to open a small marketing office under the Name of Indian Refining Company of California.
- 1911 Deterding forms a Marketing company in San Francisco to sell Sumatra "Shell Sprits" gasoline on the West Coast. First named the Indian Refining Company of California.

- 1911 - 1912 Under the management of London base Asiatic Petroleum Company, the Group moves into the Pacific Northwest, builds a bulk terminal and starts marketing Shell products.
- 1912 With the failure of the Indian Refining merger, on September 3rd, The American Gasoline Co. was formed in the State of New York.
- 1912 In September, fifteen acres of land on Suisun Bay at Martinez was purchased from the Frazer family for \$8,500 by the American Gasoline Company for the erection of a deep water terminal and to provide for a wharf, six tanks, a dormitory and two bungalows. Construction underway before the ink is dry on the purchase.
- 1913 June 16, The tanker ship the S.S. J.B.A. Kessler docks at the Martinez wharf with a shipment of "Shell Motor Sprits" from Sumatra.

## APPENDIX III

### REFERENCE MATERIAL FOR HISTORIC ARTICLES IN NEWSLETTER

The following list are the major sources for the reference material used in the writing of the monthly Shell History articles that have been published in the Alumni Newsletter since January 2013. The base information has come from item #1, Enterprise in Oil with follow up from other books in the list. Photographs or plant drawings have come from items 9, 10 & 1. Almost all of the books and reference material listed is in the possession of the Shell Alumni Museum.

1. ENTERPRISE IN OIL - A HISTORY OF SHELL IN THE UNITED STATES by Kendall Beaton, Appleton-Century-Crofts, Inc., New York 1957.
2. A INTERNATIONAL OIL MAN - By Sir Henri Detering as told to Stanley Naylor, Harper and Brothers, London and New York 1934.
3. THE PETROLEUM HANDBOOK - COMPILED BY MEMBERS OF THE STAFF OF COMPANIES OF THE ROYAL DUTCH/ SHELL GROUP, Shell International Petroleum Company Limited, London 1959.
4. A HANDBOOK OF THE PETROLEUM INDUSTRY - By David T. Day, Ph.D., Volume II, John Wiley & Sons, Inc., New York, Chapman & Hall, Limited 1922.
5. Bulletin 162 Department of the Interior, Bureau of Mines, Petroleum Technology 45. REMOVAL OF THE LIGHTER HYDROCARBONS FROM PETROLEUM BY CONTINUOUS DISTILLATION, WITH ESPECIAL REFERENCE TO PLANTS IN CALIFORNIA By J. M. Wadsworth, Washington, Government Printing Office, 1919.
6. HISTORY OF THE ROYAL DUTCH by Dr. F. C. Gerretson, Professor of Constitutional History in the University of Utrecht, Volume I thru IV, Leiden, E.J. Brill 1953.
7. THE TECHNICAL DEVELOPMENTS OF THE ROYAL DUTCH/ SHELL 1890 - 1940, by R. J. Forbes and D. R. O'Beirne, Leiden, The Hague, Netherlands, 1957.
8. A HISTORY OF ROYAL DUTCH SHELL, Joost Jonker & Jan Luiten von anden, Volume I thru IV, Oxford University Press, 2007.
9. A photograph scrapbook of the original bulk terminal construction from 1912 and 1913.
10. A photograph and text scrapbook from 1915 - 1919 of the construction of the original Martinez Refinery.
11. Martinez Refinery Construction Ledger for 1914 thru 1916.
12. Martinez A California town, published by the Martinez Historical Society, 1986.
13. THE SEVEN SISTERS - *THE GREAT OIL COMPANIES & THE WORLD THEY SHAPED*, By Anthony Sampson, The Viking Press, New York 1975.
14. The BLACKHAWK AUTOMOBILE MUSEUM in Danville, CA View of Classic automobiles and use of library.
15. 1915 - 1950's Asset Accounting Summary Ledgers Volume I and II Very old large bound ledgers, fragile located at the museum.
16. A number of unmarked photographs from the files.
17. Unidentified material yet to be discovered.

18. Use of Internet for search of related historic sites and organizations. The following websites have been used to collect and verify dates and information.

18 A San Joaquin Valley Geology - <http://www.sjvgeology.org/index.html> This site explores the geology of the San Joaquin Valley of California, and the history of its oil industry.

18 B JOHN'S OCTANE ENGINE PAGE <http://www.runyard.org/jr/CFR/octane1.html> This site presents the development and introduction of the CFR engine.

18 C Waukesha CFR Engine <https://www.asme.org/getmedia/ffedc33f-7e2b-4775-95ec-2f633ddc16f6/50-Cooperative-Fuel-Research-Engine-1928.aspx>

18 D American Petroleum Institute <http://www.api.org/globalitems/globalheaderpages/about-api/api-history>

18 E The Story of Oil in California [http://www.priweb.org/ed/pgws/history/signal\\_hill/signal\\_hill.html](http://www.priweb.org/ed/pgws/history/signal_hill/signal_hill.html)

18 F The Brass Car Era - Prior to 1920. <http://www.antiquecar.com/brass.php>

18 G Vintage Car Era Timeline 1920 - 1945. <http://www.antiquecar.com/timeline/vintage-car-history.php>

18 H THE MODEL T FORD CLUB OF AMERICA <http://www.mtfca.com/encyclo/index.htm>

18 I Blackhawk Museum at Danville, California <http://www.blackhawkmuseum.org/>

18 J California Auto Museum - Mainly Ford Cars just south of Old Sacramento <http://www.calautomuseum.org/exhibits-and-collections/current-vehicles/>

18 K Gilmore Car Museum <http://www.gilmorecarmuseum.org/index.php>

18 L The Pierce-Arrow Museum <http://www.pierce-arrowmuseum.org/>

18 M The Packard © Club <http://www.packardclub.org/>

18 N Article on Coast Artillery Ammunition from Ancestry - TNT & Hercules Powder Co. <http://freepages.military.rootsweb.ancestry.com/~cacunithistories/CAC%20Ammunition.html>.

19. Shell Marketing Publications - SHELLING THE LINE - Vol. I - IV - 1928 - 1930. Bound book of the original publications.

20. The Shell Building at San Francisco by Hallam H. Anderson, Copy of publication from the San Francisco Public Library, pdf format; Digitized file: 1930 The Architect and Engineer, Inc., pages 385 (33)-409 (52), July issue, published monthly, San Francisco book 720.5 Ar24 101, Accession 324033.

21. The Shell Poster Book, Reprints of Shell posters made in the UK from 1923-1952, David R. Godine, Publisher, Boston, Mass. 92 pages, 1993.



SHELLS