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# HISTORIC STRUCTURES REPORT

## **BATES WELL RANCH ORGAN PIPE NATIONAL MONUMENT**

A Service Learning Project of the  
Preservation Studies Program  
College of Architecture and Landscape Architecture  
The University of Arizona

In conjunction with:  
Colorado Plateau/ Cooperative Ecosystem Studies Unit (CP/CESU)

May 2006



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# TABLE OF CONTENTS

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## Management Summary

Executive Summary .....	06
Administrative Data .....	07

## Part One: Developmental History

Introduction.....	10
Historical Background and Context.....	13
Chronology of Development and Use.....	18
Physical Description	
Introduction.....	23
Summary.....	23
Buildings.....	23
Landscape.....	28
Assessment Sheets	
Main Residence.....	31
Small Residence.....	36
Blacksmith's Shop.....	42
Arrastra.....	48
Bunkhouse.....	50
Haybarn.....	56
Tack House.....	62
Ocotillo Shed.....	67
Bates Well.....	73
Windmill #1.....	76
Windmill #2.....	80
Windmill #3.....	85
Eastern Corral.....	90
Southern Corral.....	96

## Part Two: Treatment and Use

Introduction.....	104
Ultimate Treatment.....	104

Bibliography.....	106
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## Appendices

Documentation Architectural Drawings	
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# PROJECT TEAM

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This Historic Structures Report was carried out between the National Park Service (NPS) and the University of Arizona (UA) through the Colorado plateau Cooperative Ecosystem Study Unit (CP/CESU) and Joint Ventures Agreement. The Report was compiled as part of the requirements in ARC?LAR 597J : Documentation and Interpretation of the Historic Built Environment, a Preservation Studies service-learning class in the College of architecture and Landscape Architecture at the University of Arizona and completed under the supervision of the principal investigator.

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# MANAGEMENT SUMMARY

## EXECUTIVE SUMMARY

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The Bates Well Ranch resides within the Organ Pipe Cactus National Monument property and was built in 1935 as a working ranch. Robert Louis Gray, Sr., is historically significant locally as a cattleman who with his sons, Henry, Jack, and Robert Jr., strongly influenced the cultural landscape of the monument with some fifteen properties devoted to cattle-raising. Sonoran Desert cattle-raising is important to Arizona history. The property exhibits buildings and structures that are characteristic of the cattle-raising pattern that developed and expanded in the international-border area that is now Organ Pipe Cactus National Monument during the early and middle decades of the twentieth century. The period of significance for the property dates from circa 1913-to-1942. The former date represents the appearance of cattle-raising at Bates Well with the advent of Reuben Daniels.

The two fundamental issues facing Organ Pipe Cactus National Monument regarding Bates Well Ranch are:

1. The deterioration of the buildings due to weathering and vandalism; and
2. An appropriate future use for the ranch buildings and ranch site as a tool for visitor education about ranching history in the arid southwest.

Based on the condition assessment, the ranch buildings are in **XXXXXX** condition. The most profound deficiencies are **XXXXXXXXXX**.

Other important factors to the treatment decision center on the remoteness of the site, and these include the cost of maintenance, the ability of the Park to integrate interpretive programs at a remote site into their management and operations, site and personal security, access to the property and internal site accessibility.

Several Treatment Options are proposed to provide the Organ Pipe Cactus National Monument with a range of solutions, representing the range of types of intervention. The Options include no-action, preservation and repair, restoration, rehabilitation, and reuse. The pros and cons of each of the Treatment Options are outlined.

# ADMINISTRATIVE DATA

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## Location Data

Building Names: XXXXXXXX  
Building Numbers: XXXXXXXX  
LCS#: XXXXXXXX  
UTM Location: XXXXXXXX

## Proposed Treatment

XXXXXXXXXX

## Related Studies

Historic Sites and Structures Inventory for Organ Pipe Cactus National Monument, 1967.

## Cultural Resource Data

National Register of Historic Places, designated 1992.

## Period of Significance

The period of significance is 1913 – 1942, according to the National Register nomination, representing the original construction date and its association with the development of ranching in Southern Arizona. However, the recommendation of this report is to expand the period of significance to include prehistoric significance.



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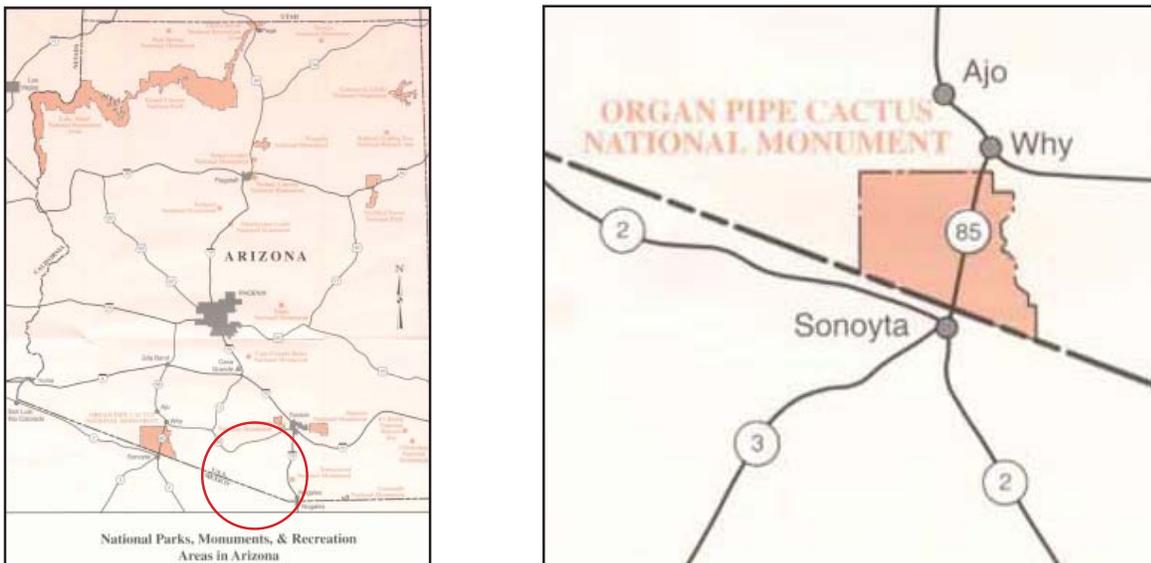
part one:  
DEVELOPMENTAL  
HISTORY

# INTRODUCTION



*Fig. 1 - HABS documentation photos of Bates Well Ranch showing various structures*

The Bates Well property is located in a scenic, arid valley in the northwestern quadrant of Organ Pipe Cactus National Monument. It is situated in an alluvial flat bordered by low rocky hills about 2 ¼ miles directly south of the northern boundary and about 8 miles directly east of the western boundary of the monument. The property is adjacent to Growler Wash in Growler Pass, a little over one mile southwest of the intersection of the pass with the northern Growler Mountains and southern Bates Mountains. It is about 16 ½ miles from the property northeast to the town of Ajo via the bumpy, one-lane, dirt-and-gravel Bates Well Road that connects at the monument's boundary with the dirt-but-graded and thus-more-improved Darby Well Road. The site of Growler Mine, on the National Register of Historic Places as the Growler Mine Area, is about 1 ½ miles to the west of Bates Well.



*Fig. 2 - Maps showing the location of Organ Pipe National Monument*

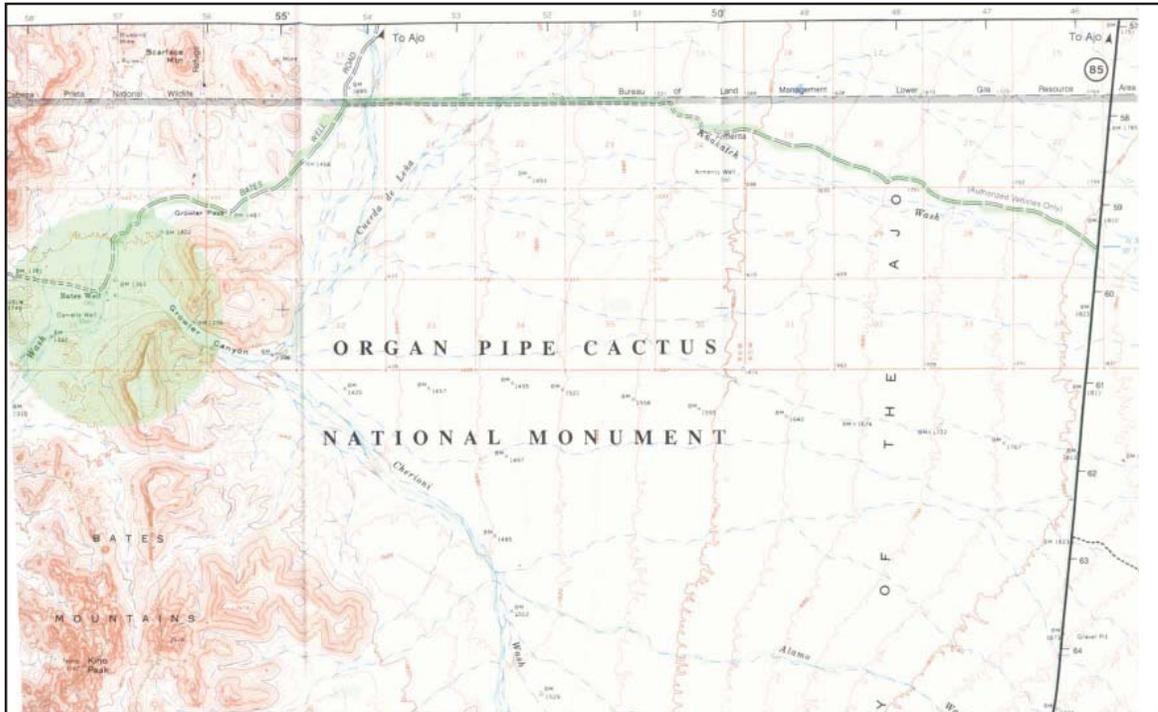


Fig. 3 Location of Bates Well Ranch within Organ Pipe National Monument

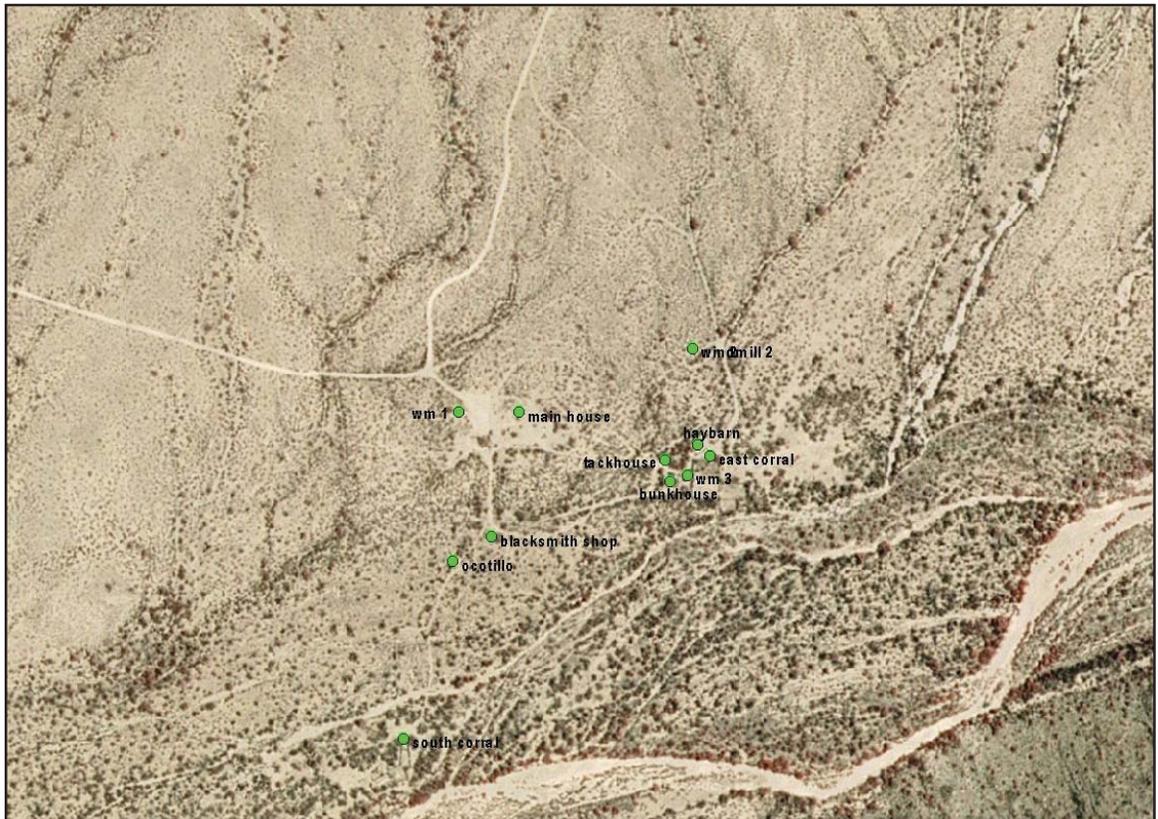


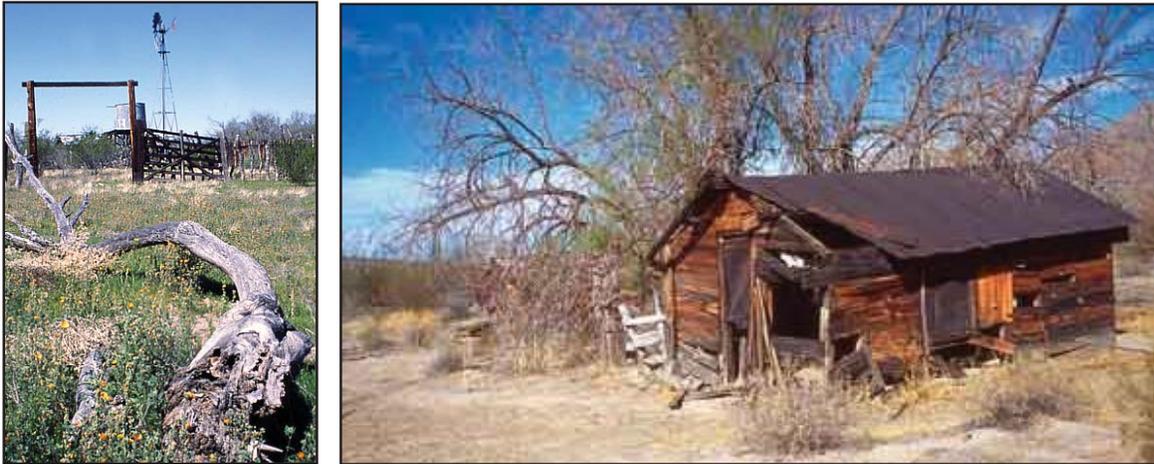
Fig. 4 Location of various structures within Bates Well Ranch through GPS

The remote setting remains much the same as it was when cattle were being run there in the heyday of the Gray Partnership, which began in 1919 at Dos Lomitas Ranch in what is now the monument and flourished at Bates Well during the 1930s and beyond.

The original well – that of W. B. Bates – is said to have collapsed early in this century, and staff members of the monument have attempted to locate the site but have been unable to do so (Greene 19771:89; Mikus 1992). It may be possible to locate it archeologically along with the two wells initiated by Reuben Daniels between 1915 and 1926.

The property configuration remains much the same as it was when it became part of the Gray family cattle-ranching enterprise in 1935 under Rober Louis Gray, Sr.'s son, Henry. Its present configuration of corrals, outbuildings, and main ranch house apparently was complete by 1942. This house is the only example left of the built environment at Growler Mine. The fact that it was recycled nearby, in another context and setting adds to its integrity in terms of the frontier practice, widely employed by the Grays, of adaptively using available materials at hand.

The two corrals, main ranch house, and outbuildings such as the blacksmith shop, bunkhouse, hay barn, and tack house, are representative of the distinctive pattern of the Sonoran Desert cattle ranching developed by the Grays with main ranches and line camps. The arrastra dates to earlier periods of Bates Well associated with mining as noted by Carl Lumholtz in 1909-1910 or with mining and ranching as pursued by Reuben Daniels starting shortly before 1913. Arrastras are becoming more rare, and the one at Bates Well is the only one extant in what is now the national monument.



*Fig. 5 - Photographs of Structures at Bates Well Ranch March 2006*

## HISTORICAL BACKGROUND AND CONTEXT

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The main ranch house was moved from Growler Mine in 1942. And, according to historians William Brown and Wilton Hoy, the other buildings and structures were constructed as part of the cattle-ranching operation of Robert Louis Gray, Sr., (Bob) and his sons, Henry, Jack, and Robert, Jr., which extended with Henry Gray to Bates Well in 1935 from the Dos Lomitas Ranch that Bob Gray acquired in 1919. “Four of the sons – Henry, Jack Ralph, and Robert Louis, Jr., (Bobby) – eventually became partners with their father in the ranch operations, although in the 1940s Ralph sold his interest to Bobby Gray and moved to California: (Greene 1977a:59). The Gray Partnership ended with the deaths of Henry and Bobby, both in 1976.

### Bates Well

Jerome Greene in his 1977 Historic Resource Study, Organ Pipe Cactus National Monument, Arizona, concludes that the original well at Bates Well was dug around 1886, perhaps earlier, by a settler named W. Bates. “W. B. Bates...may have been a Confederate soldier...(he) dug the well and (later) probably sold or gave it to Rueben Daniels” (Hoy 1976:164). Since it was during his tenure at Bates Well (Bryan 1925:181).

Water would have been necessary for the operation of the arrastra. Water was either slowly dripped onto the gold ore or periodically added while it was being pulverized to sand by the dragstone in the circular pit pulled by a horse or mule. “Water was added to make a fluid mixture to which a measured amount of mercury (quick or quicksilver) was added toward the end of the grinding cycle” (Kelly and Kelly 1983:86).

Water was obviously very important in the desert. In the early days of Bates Well, it basically served as the sole water source for the Growler Mine and surrounding community. Subsequently, whoever “controlled Bates Well pretty well controlled the Growler Valley rangeland” (Brown and Hoy 1967:32).

The copper mine at Growler began in the late 1880s, and productivity peaked in 1916. The 1925 work of Kirk Bryan, specifically the 1922 water-sources map therein, surveyed in 1917, shows two wells at Bates Well with none at Growler Mine, not even an abandoned well or dry hole. No other water sources such as springs are indicated either, although at Bates Well, “numerous springs in the nearby mountains: were associated with the O’odham village of Juni Kahch, mentioned above (Greene 1977a:89).



*Fig. 6 - The role of water in the history of the Site*

Reuben Daniels was married to an O’odham woman, Vivana Orosco, and they had six children. He made improvements at Bates Well in the form of buildings, corrals, and wells. The original well of W. B. Bates soon caved in, and Daniels dug another near it. Then, in 1915 Reuben Daniels and a man named Charles G. Puffer dug a third well near Growler Wash to the southwest of the original well. A windmill and a corral complex were constructed at the new site, informally called Daniels Well or the West Well by Kirk Bryan. At least three more wells came to be dug at Bates Well, including the last one of Henry Gray in 1953 that replaced Daniels Well.

### Henry Gray Partnership

Henry Gray bought Bates Well in July 1936 from John McDaniels, made the improvements that remain today, and ranched there until his death in 1976. Beginning in 1919, Robert Louis Gray, Sr. (Bob) (1875-1962) and later three of his sons – Henry (1897-1976), Jack (1909-1975), and Robert, Jr. (Bob) 1912-1976), -- eventually came to control, as the Gray Partnership, virtually all of the ranching interests, in what, in 1937 became Organ Pipe Cactus National Monument.

Robert Louis Gray, Sr.

Robert Louis Gray, Sr., is described by historian Wilton Hoy as a feisty, indomitable, rawhide cattleman...the quintessential frontier cattleman” (Hoy 1976:165, 170). He apparently was straightforward, personable, gregarious, honest, hospitable, and opinionated and raised his children to stay out of trouble and to fit the same mold. Historian Jerome Greene adds that Bob Gray was an astute businessman and property manager (Greene 1977:59). He and his sons, Henry, Jack, and Robert, Jr., who all lived out their lives in what is now the National Monument, would hire Tohono O’odham Indians and Mexicans when extra cowhands were needed “to help with round-up and branding work” (Hoy 1976:169). Some of these individuals were long in the employ of the Grays, such as Chico Suni, an O’odham who worked for Bob and then for Henry and who still lives in the area north of the monument. Bob Gray and his family shopped, generally by horseback in the early days, both north and south of the international border, and he was known north in Ajo and south in Sonoita as a colorful character as well as a respected member of the frontier community. He and the rest of his family, “learned to work with the desert and with their Anglo, O’odham, and Mexican neighbors very well” (Hoy 1976:169).

### Large Ranching Interests/Holdings

Robert Louis Gray, Sr. and three sons – Henry, Jack, and Robert, Jr., out of his five sons and four daughters – came to hold virtually all of the ranching interests in what became Organ Pipe Cactus National Monument in 1937. As noted, the senior Gray started buying ranches, line camps, and water rights in 1919, and he and his sons became the dominant ranchers in the Sonoran Desert Below Ajo, Arizona, on the northern side of the international border. Bates Well was but one of several Gray properties in what became the monument, include Aguajita Spring, Alamo Canyon Ranch, Bonita Well Line Camp, Bull Pasture, Cement Tank, Dos Lomitas Ranch, Dowling Ranch, Gachado Line Camp, Hocker Well, Pozo Nuevo Line Camp, Pozo Salado or Salt Well, Red Tanks Well, Wild Horse Tank, and Williams Spring.

The frontier-border style of the Grays was noted for its use of miscellaneous building materials at hand and for a series of ranches and line camps about a day’s ride apart with wells, corrals, and trigger gates, which were used to roundup the cattle when they came in for water from the open range. According to Wilton Hoy in his 1975 compilation Organ Pipe Cactus Historical Research, “roundups...were...made by trapping the cattle at given water holes surrounded by a corral and a gate through which they could enter but not leave”. The trigger gate was clever and representative of the Grays’ distinctive pattern of cattle-raising in the Sonoran Desert. Caroline Wilson, the head of interpretation at the monument, in her 1987 brochure on Puerto Blanco Drive, emphasizes the

uniqueness of the trigger gate as a very distinctive feature of Sonoran desert ranching. “Rather than riding the range to round up cattle in the traditional manner of the American West, ranchers of Northwestern Papagueria, including the Gray family, selected the hot, drought season when natural (watering) holes dried up. They ran water inside the corrals and closed them with trigger gates. So when cattle entered the corral through the V-shaped gates that pointed into the corral, barely allowing passage in, they could not exit the gates” (Hoy 1976:169).

John Cole was a seasonal park ranger at OPNM during the Gray period and spent one winter at Bates Well. Interviewed February 9, 2000.

According to John Cole all the Gray brothers participated in the roundups, had arguments about fencelines and who was going to use a particular domain. He said that he did not know how they resolved all those issues but they seemed to get along. He said that wherever there appeared to be new grass in different areas, the cattle would be moved to that area and huge galvanized water tanks would be moved in with the cattle.

“They hauled those things around. They would take them to an area where they wanted the cattle to be and ah, leave the tank there. They had one truck, which would go around and fill up these water tanks. So it was a migratory sort of thing. From Bates Well, you drive along here and you’ll see a little offshoot here and there where they had moved a tank and put it in there for the cattle to drink because there’d be good grass in this area. An of course the cattle coming in would mash down all the terrain around. So where you find places that look like they’re trampled down by the cattle, it was probably because they had moved a tank to that one area. The terrain would be beat up about fifty yards around the water tanks.”

### Henry Gray

Ralph Gray was interviewed in 1983; he was 81 years old at the time.

The interview asks about how Henry got shot; and how the injury affected him.

“Yeah, He was in pretty bad shape, too, when come here. I don’t know he ever did rode. He was tough. He was shot in the neck and if affected his arm. When he fell off his horse he got his arm caught in the rope, jerked it out of joint. Henry, course he always favored that arm, we’d go down there and brand calves and rope, and he could rope one or two, then his arm would give out. So then you what? He’d change to his left hand. I don’t know how anybody can do that, move from right to left. He could. And He was a good roper with either hand.”

### Cattle

Concerning cattle, Reuben Daniels (1878-1926) was known to be running cattle at Bates Well in 1913, and that year is generally accepted as the time when he acquired the property from W. B. Bates. “No major cattle production by Americans in the immediate vicinity of the national monument took place until after 1912, and earlier references to cattle and horses in the Sonoita Valley largely referred to stock-raising south of the international line” (Greene 1977a:58).

At Dos Lomitas in 1919, with the cattle they shipped to Ajo by rail and herded south to their new ranch and the cattle they bought from Lon Blankenship, they had “roughly a thousand (1,000) head” (Hoy 1970:166). According to Kirk Bryan (1925:418), “as many as 2,000 head of cattle have been kept at Bates Well, but that number is more than the range can support.” To compare the increase in the number of grazing cattle over time, there were about 1,800 cattle in Pima County, Arizona, in 1870 (Clemensen 1989:61). “By 1892, the yield in cattle shipped from Pima County was 121,000 head: (Spicer 1986:137). “It appears to be a general practice of Desert Cattlemen in all sections of the country around Tucson, Arizona, to run all the range can carry in good years

years in the hope that during unfavorable seasons, such as the last winter (1941-1942) and present summer season (1942), enough of them will survive the drought and lack of feed (forage) that they can make up the difference in good years” (Ratcliff 1942, quoted in Hoy 1976:228). Over the years after the establishment of the monument, annual grazing permits issued by the National Park Service to the Gray Partnership ranged from 550 cattle to 1,050 a year.

### Organ Pipe Cactus National Monument

Bob Gray and his ranching sons Henry, Jack, and Bobby shaped or influenced much of the cultural and natural landscape of what is now Organ Pipe Cactus National Monument. Many of the cultural resources being interpreted today in the monument are former ranching properties of the Grays. These were either taken over from the former owners or established by the Grays. The distribution and historical function of these ranch headquarters and line camps were determined in a cultural-ecological way by the need to have watering spots for livestock in the trigger-gate/open-range pattern of Sonoran Desert ranching. The Grays consolidated this pattern and perpetuated it for fifty-seven years within what is now the monument. Unfortunately, they affected some of the natural resources by overgrazing, which was not uncommon among Arizona ranchers, and the monument may not as yet be fully recovered since the cessation of cattle-raising in 1976.

### Historic Ranching Context Themes

#### Introduction of Cattle

Cattle were first brought into Arizona by Don Francisco Vasquez de Coronado on his expedition north from Mexico, 1540-1542. This journey preceded the trail drive, a practice of the cattle industry used to get the animals to market. In 1696 and early in 1697 cattle ranching started in Arizona when Padre Eusebio Francisco Kino placed some cattle, sheep, goats, and horses with the Tohono O’odham Indians of Mission San Xavier del Bac and with the Sobaipuri Indians along the San Pedro River at the Quiburi Rancherias.

Cattle raising was often coupled with horticulture and agriculture. That was true of the Spanish missions, and of the Indians in southern Arizona of the seventeenth and eighteenth centuries. It was also characteristic of William Kirkland’s 1857 operation along the Santa Cruz River at Canoa, about twenty miles north of Tubac. He is credited as being the first Anglo to take up ranching in Arizona. Another ranch, Pete Kitchen’s spread, along the Santa Cruz in the 1860s near the present Mexican border, held out against the constant raids of the Apaches due to having enough supplies. After the Apaches were subdued by the United States army in the 1870s and 1880s following the Civil War, the presence of Anglos increased as they began to enter and settle the area obtained from Mexico through the Gadsden Purchase in 1853-1854. The pursuit of ranching as a primary and specialized activity was a consequence of the so-called taming of the frontier, although frontier conditions still existed that indeed required a great deal of ingenuity to adaptively and creatively use a combination of local and imported materials for construction, that is, the use of miscellaneous materials at hand (Appleman and Jones 1969:51).

#### The Railroads

The coming of railroads were a stimulus. In various parts of the state, cattle raising had assumed the aspects of a business enterprise by 1880, and the building of the Southern Pacific was of paramount historic importance towards that end. The Southern Pacific was the first railroad in Arizona and operated its first service there in 1877. The town of Ajo by 1916 had been linked with the Southern Pacific by the Tucson, Cornelia, and Gila Bend Railroad (Walker and Bufkin 1986:46; Dollar 1991:44). That coincided with the establishment of the New Cornelia (Copper) Mining Company at Ajo and the stimulation of the cattle industry in the vicinity of Ajo. The Ajo railhead eliminated the necessity for a long trail drive, and the developing mining community

provided a local market for beef. Cattle-raising by the 1920s had become a significant part of Arizona's economy along with copper mining, lumbering, sheep raising, and tourism.

### Gathering from the Desert

From interview with all the Gray brothers – January, 1975.

When asked about the fruit gathering of the Papagos, and if they came into the area very much, Bobby Gray answered. "Yes they did. Yeah, they gathered the organ pipe, which we called pitahaya. Yes, they gathered them every year. They'd leave the wagons on the other side of the mountain there and walked in. Camped there. Gathered the organ pipe cactus fruit. They had plenty of it, also." Ralph Gray: "They had a lot of saguaro fruit, also. Strained those seed out of them, boiled them. That's the way they fixed them, see. Mashed the fruit. At one time that was the only sweets they had, you know. That's the way they survived. Cactus saguaro fruit. As far as sweets were concerned. They didn't have no sugar."

Pitahaya – A term used by the Spanish for several columnar cacti and their fruits.

The fruits are gathered from the Organ Pipe Cactus by the Papago Indians and mixed with those of the saguaro in order to produce a slightly different flavor to the jam made from them (McDougall, 1940).

### Natural Resources

With their overgrazing, the Grays obviously did not stress the conservation of natural resources, but they did learn to live much in harmony with the Sonoran Desert and with different peoples and cultural groups on both sides of the border.

"What I've noticed, in the last 20 years of coming back in here, how much lusher the vegetation is now, than it was in the mid-'50s when we left. Because you've got understory. You have erect ocotillo because the cattle used to munch them back. You'd find these ocotillo that looked like someone had dropped a weight on them. With the branches just all broken off mid-rib and trashed. And you don't see any of that now. It's really great. It's nice to see the vegetation recovering." Bill Supernaugh, first Superintendent of Organ Pipe Cactus National Monument – His tenure began in October 1939 and ended in 1954. Interviewed February 17, 2000, at OPNM.

# CHRONOLOGICAL DEVELOPMENT AND USE

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## Prehistoric

### Overview

Bates Well has been a site of human habitation in the Sonoran Desert from prehistoric times until the present period. It served as a crossroads and camping spot for seasonal routes of aboriginal migration and trade in prehistoric Hohokam and historic Tohono O'odham and Hia-Ced O'odham times (formerly Papago and Sand Papago peoples, respectively). It, for example, was a stopping place for the O'odham on their annual pilgrimages south to gather salt by the Gulf of California. It continued as a crossroads during the Anglo period of settlement and was the site of the nineteenth and twentieth century Hia-Ced O'odham village of Juni Kahch (variously spelled as Juni Kaack, Tjuni Kaatk, Tjunikaat, or Tjunikaatk). It means "where there is saguaro fruit or place of saguaro fruit." During a 1909-1910 trip, the explorer Carl Lumholtz, visited Bates Wells observing that, "some of the former sand people (Hia-Ced O'odham) live here. At present this is a mine and store, a few Americans residing. Good well" (page 378 of his 1912 work *New Trails in Mexico*). The project area is located within the Low Basin and Range subdivision of the Basin and Range Physiographic Province of southwestern Arizona, an area characterized by long, narrow, north-northeast trending mountain ranges separated by broad alluvial valleys and basins. The study area is located west of the Valley of the Ajo at an elevation of approximately 1400 feet above mean sea level. Adjacent mountain ranges include the Bates, Growler and John the Baptist Mountains, composed of mid-Miocene to Oligocene silic to mafic flows and pyroclastic rocks (Reynolds:1988, Map 26). Several large west and northwest flowing seasonal drainages, including the Growler and Cherioni Washes, cross the area, and eventually join the Gila River.

### Cultural Setting

The project area is located in the western Papageria (Rankin [Draft Report] 1995 :Figure 2.4), a historically dynamic culture area in southwestern and south-central Arizona and northwestern Sonora. Human occupation in the western Papageria is represented by five distinct cultural periods: the Paleoindian, Archaic, Prehistoric Ceramic, Protohistoric, and Historic periods. Several cultural overviews of the Papageria and the western deserts of Arizona have been presented (Doelle 1980; McGuire and Schiffer 1982; Rozen 1979; Stone 1986, 1991; Whittlesey et. al.1994), and a more area-specific synopsis is presented by Rankin ([Draft Report] 1995). The following is a brief summary of western Papageria culture history, drawn primarily from Rankin's ([Draft Report] 1995) manuscript.

### Paleoindian Period

The Paleoindian cultural tradition (9-10,000 B.C. to 6-8000 B.C.) is generally accepted as the first human occupation of the New World. The Paleoindian tradition is characterized by a specialized tool complex best represented by distinctive fluted spear points (Clovis points), and by a mobile settlement/subsistence system based on big game hunting and supplemental plant food foraging. Paleoindian sites are often found in association with the remains of extinct Pleistocene megafauna, including mammoth, giant sloth, and bison (Cordell 1984). Evidence for a Paleoindian occupation of the western Papageria may be represented at Ventana Cave (Haury 1950), located approximately 35 miles/56.3 km east of Why. A "Clovis-style" point and associated

lithic materials are included in the Ventana Cave assemblage, but whether the point represents a local variant of the Clovis culture (Haury 1983:162), or an early Archaic period complex (Huckell 1984:191), is debatable. An isolated Clovis point was also identified approximately 30 miles/50 km west of Ajo, in the Cabeza Prieta National Wildlife Refuge (Ezell 1954).

### Archaic Period

The Archaic Period (6-8000 B.C. - A.D. 300) was characterized by fluctuating climatic conditions, but witnessed a general warming and drying trend following the end of the Ice Age. Changes in the environment led to changes in human subsistence strategies, with increasing reliance on small game hunting and plant food gathering. Seasonal mobility, often involving the establishment of base camps near water sources, allowed seasonally-available resources to be exploited in a variety of environmental settings. The Archaic tool assemblage includes groundstone implements used to process plant foods, as well as several projectile point types specifically developed for small game hunting. Agriculture was introduced to southern Arizona from Mesoamerica during the Archaic period, and maize was cultivated intermittently by 2000 B.C. (Cordell 1984:168). In the Papaguera, the Archaic period is best represented in the Ventana Cave assemblage (Haury 1950). Archaic remains have also been identified in the Sierra Pinacate region to the southwest of the project area, and 10 Archaic period sites were identified during survey within Organ Pipe Cactus National Monument (Rankin [Draft Report] 1995).

### Prehistoric Ceramic Period

The Prehistoric Ceramic Period (A.D. 300 - 1450) in the Papaguera is defined by the introduction of ceramic technology, and by a continuing progression towards sedentism and agriculture-based economies. Three distinct prehistoric ceramic cultures are represented in the Papaguera: the Hohokam, Patayan, and Trincheras.

The Hohokam are the best-known prehistoric culture in southern Arizona, and the majority of prehistoric ceramic sites identified in the western Papaguera reflect a Hohokam occupation (Whittlesey et al. 1994). The Hohokam were the architects of an extensive irrigation agriculture-based economy centered in the river valleys of central and southern Arizona. Non-riverine areas were also utilized by relying on rainfall and local run-off to water crops, and by supplementing agricultural activities with hunting and gathering. The Hohokam presence in the western Papaguera is well represented throughout the entire prehistoric ceramic period, although early (Pioneer Period) sites are quite rare. Several large Hohokam sites have been identified in the vicinity of the project area, including AZ Z:13:1(ASM), AZ Z:13:2(ASM), and AZ Z:13:8(ASM) [Rankin [Draft Report] 1995:181-222, 214-222, 222-230]; and AZ Z:9:22(ASM) and AZ Z:9:26(ASM). The Hohokam culture, often described as a regional system of linked economies and beliefs (Wilcox 1979), collapsed sometime around A.D. 1450.

The Patayan cultural tradition spans both the prehistoric and protohistoric periods (A.D. 700 - 1700), and was established primarily along and adjacent to the Lower Colorado River Valley (Stone 1991). Little is known about Patayan settlement and subsistence patterns, but they generally appear to have been less sedentary and less agriculture-dependent than the Hohokam, and to have relied to a much greater extent on seasonal hunting and gathering activities. The extent of Patayan settlement is known primarily through the distribution of their diagnostic pottery, Lower Colorado Buff Ware (Waters 1982), which has been found from southern Nevada to the Gulf of California, and from the Salton Sea area east to the Phoenix Basin. Patayan ceramics have been identified in Organ Pipe Cactus National Monument (Ezell 1954), and north of the Crater Mountains (Huckell 1979).

The Trincheras culture dates from approximately A.D. 200 - 1450, and developed around the Magdalena-Altar-Conception river systems in northern Sonora, Mexico (Rankin [Draft Report] 1995:63). As with the Patayan tradition, little is known of this culture (Whittlesey et. al., 1994:212), although it has been argued that later Trincheras material (post-A.D. 1200) is actually part of the Hohokam regional system (McGuire and Villapando 1989; 1993). Trincheras ceramics have been identified at several Hohokam sites in Organ Pipe Cactus National Monument.

### Protohistoric Period

The Protohistoric period in the western Papaguera extends from the collapse of the Hohokam cultural system at about A.D. 1450 to the beginning of recorded history in this area, with the entry of Spanish explorers around 1700. Two distinct, though related, aboriginal groups were present in the western Papaguera during this period: the Tohono O'odham (Papago) and the Hia C'ed O'odham (also known as the Arenenos Pinacatenos or Sand Papago). Both groups depended heavily on hunting and gathering, and moved seasonally depending on the availability of food and water. The Tohono O'odham, occupying an area between the Tucson Basin on the east and the Growler and Bates Mountains to the west (Rankin [Draft Report] 1995:65), were the more sedentary of the two groups, and practiced a form of floodwater farming. The Hia C'ed O'odham occupied the driest portion of the Papaguera: from the Bates and Growler Mountains west to the Colorado River, and from the Sea of Cortez north to the Gila River. This highly mobile group subsisted almost entirely by hunting and gathering, although one camp site was known to have a small canal-fed agricultural field (Rankin [Draft Report] 1995:66). One Protohistoric or early historic O'odham site (AZ SON C:1:18[ASM]) has been identified in Organ Pipe Cactus National Monument. As previously noted, the Patayan cultural tradition also extended into the Protohistoric Period.

### Historic Period

The historic period in the western Papaguera begins around A.D. 1700 with the onset of relatively large-scale Spanish colonization. Father Eusebio Kino was among the first to journey extensively in the Papaguera, and established a mission in Sonoyta in 1700. Spanish influence in the Papaguera ended in 1821 with the Mexican revolution, although this had little effect on the average inhabitant of the area. Mining and ranching became important in the western Papaguera shortly after the Spanish Entrada into the region, and in the mid-1800's both began to expand, eventually becoming two of the most important economic factors in the area. Mining had been developing since 1724, but it was not until the 1800s that large scale mineral explorations began. In 1854 the Arizona Mining and Trading Company was established to recover copper ore from the Ajo area. Due to the lack of water, high transportation costs, and other factors, this operation went bankrupt in 1859 (Greeley 1987:15). It was not until the early 1900s that extensive mining activity in the Ajo area developed. The increase in mining activities also had the effect of stimulating the cattle industry in the western Papaguera, and by the early 1900s, there were several extensive ranches in the area including the Gray, Childs, Dos Lomitas, Daniels and Miller Ranches, with over 1500 head of cattle. Beginning in the 1950s, the economic base of the western Papaguera began to diversify as increasing numbers of tourists passed through Ajo, Why, and Lukeville on their way to the Mexican coastal town of Puerto Peñasco. In 1984 the mine at Ajo closed, followed by the smelter in 1985. The local economy today is based largely on tourism, and on Ajo's growing popularity as a retirement community.

### Known Cultural Resource Sites in the Vicinity of Bates Well

A review of the AZSITE cultural resource database, General Land Office plats of T14S, R6W; T14S, R7W; T15S, R6W and T15S, R7W, available from the U.S. Bureau of Land Management, Rankin's ([Draft Report] 1995), as well as on-line resources at the Arizona State Parks (Historic Trails of Arizona) and the U.S. Fish and Wildlife Service websites (<http://www.pr.state.az.us/partnerships/trails/diablo.html> and <http://www.fws.gov/southwest/refuges/arizona/diablo.html>, respectively) indicated the presence of numerous previously identified archaeological sites. Detailed location data regarding these sites is not presented herein. The Arizona State Historic Preservation Office context on gold and silver mining in Arizona (Keane and Rogge 1992) was also referenced.

Twelve archaeological sites have been previously located within a three mile diameter area centered on the Bates Well site complex. Specific data regarding these resources was not available, but they are likely small resource procurement/processing sites such as mesquite pod gathering loci, temporary habitation camps and/or roasting pits, and are likely attributable to prehistoric Archaic Period inhabitants, the Hohokam cultural tradition and/or the protohistoric/historic period Tohono O'odham and the Hia C'ed O'odham. Historic period European cultural resources in the vicinity include numerous mineral resource extraction sites such as open pit mines and prospects.

Additionally, significant trail segments, including the prehistoric and possibly protohistoric and historic period Native American Shell Trail, and the Spanish and Anglo period El Camino del Diablo, pass through the vicinity of Bates Well.

The Shell Trail, which consists of numerous north-south oriented alignments, extends from the Gulf of California to southern and central Arizona (Hayden 1972; Vokes 1998), and was utilized by the prehistoric and possibly protohistoric inhabitants to gather and transport marine shell to habitation and jewelry production sites throughout southern Arizona; salt was also transported along these alignments during the historic period. The Tohono O'odham utilized the trails to move to and from the northern Gulf of California to gather salt. This journey was considered a rite of passage for young males, signifying their entry into adulthood (Underhill 1946). These alignments are significant in terms of their potential to contribute important information pertaining to subsistence, trade and ceremonial activities during the aforementioned periods. Additionally, it is highly likely that additional sites, including temporary camps and resource extraction loci, are located in the vicinity of the trails and may be affiliated with them.

The historic period El Camino del Diablo was formally 'developed' by the Spanish, who traveled from Caborca and Sonoyta in Sonora, Mexico, to missions in California (the section of El Camino del Diablo in the vicinity of Bates well is indicated on Figure \*) beginning in late 1600's or early 1700's; the alignment, or portions thereof, was also utilized by Native American groups prior to this. The corridor was also heavily used by Anglo miners during the Gold Rush of the late 1840's and 1850's. This alignment has the potential to contribute significant information pertaining to Prehistoric, Protohistoric and possibly Historic Period Native American communication and trade, Spanish Colonial Period missionary travel, communication and trade, and Historic Period Anglo mining and travel activities in southwestern Arizona and California. As with the Shell Trail, there are likely additional archaeological sites and cultural resources in the vicinity of the alignment that may be affiliated with it.

## Settlement, Subsistence, Travel and Economic Development in the Vicinity of Bates Well

Humans have occupied the Bates Well area for thousands of years. A common theme throughout this period of utilization has been the availability of water. As one of the most arid regions in North America, it is a difficult place for people to inhabit on a permanent basis given the relative lack of perennial water sources and extreme heat. The obvious rationale which explains such a long period of occupation in this region is water. The Bates Well area was likely one of the few places that water would have been available on a reliable basis, either from seasonal flows or from tinajas. “Tinajas, also known as rocks tanks or plunge pools, are basins or depressions that are worn into bedrock” (Rankin [Draft Report] 1995:15). Five tinajas have been identified within a three mile diameter radius of Bates Well and would have held water primarily on a seasonal basis after summer monsoon events. However, there is also evidence of prehistoric use of groundwater in the form of a storage tank excavated in the nearby Valley of the Ajo (Rankin [Draft Report] 1995:17). Surface water flow in Growler Wash is probably limited to the above-noted storm events, but the water table is also closer to the surface than in most areas of the Monument due to the confining nature of the nearby mountains and associated subsurface volcanic dikes; these geologic structures would have forced groundwater closer to the surface and thus made it easier to access. The reason for prehistoric habitation of this area and the location of Gray’s Ranch, in the immediate vicinity of these resources, is obvious.

## PHYSICAL DESCRIPTION

### Introduction

#### Summary

The extant buildings and structures at Bates Well, with the exception of the earlier arrastra, are of Henry Gray's occupancy, which began in 1935 and ended with his death in 1976. The present configuration of buildings and corrals seems to have been in place by 1942 when the main ranch house, built in 1937, was moved by Henry Gray from Growler Mine to Bates Well.

#### List of Buildings and Structures

Name	Built	Element
Main Ranch House	1936	1 building
Bunkhouse No. 1	c. 1935	1 building
Tack House	c. 1935	1 building
Hay Barn/Bunkhouse No. 2	c. 1935	1 building
Blacksmith's Shop	c. 1935	1 building
Ocotillo Shed	c. 1935	1 building
Small Residence	c. 1935	1 building
Two Wells/Windmills	c. 1935	2 structures
Eastern Corral	c. 1935	1 structure
Southern Corral	c. 1935	1 structure
Arrastra	c. 1909	1 structure
Henry's Windmill/Well	1953	1 structure
Hohokam Encampment	c. A.D. 1000	1 site
Juni Kahch Village Site	19th C. into 20th	1 site
One Store Site	c. 1909	1 site
Three Well Sites	c. 1870-1926	3 sites

#### Building Systems

The main ranch house is a simply constructed, T-shaped, one-story frame building with intersecting gable roofs of corrugated tin and an exterior of wooden boards covered with plastered cement. The main house of the ranch may have been a miner's cabin originally (southern exposure) with a later add-on (northern exposure) (Garrison 1992). The only evidence obtained to document the construction materials being taken from the Growler Mine are from this informal interview was conducted at the Ajo Historical Society on August 25, 2000. Charles Edward "Ed" Havins was interviewed by Sue Rutman, Organ Pipe Cactus National Monument, Ajo, Arizona. Ed Havins lived on a ranch at Organ Pipe and had associations with the Grays. Margaret Ross lived in the area, also a contemporary with the Grays, has her own reminiscences of that time. Observation of the Bates Well Ranch has brought forth questions regarding the variety of building materials that appear to be salvage and as to their acquisition. The following oral history documentation offers possibilities as to where such a mixture of materials may have been secured.

Ed: "And a single door here? And their home in later years was right down this" [pointing to right of the photo].

Sue: *"I think you're seeing this from... Clarkston".*

Ed: *"Oh, yeah".*

Sue: *"Is this all wood in here, do you think? Looks like a big, big huge pile of wood".*

Ed: *"Now, when I left, when I went to work for PD [Phelps Dodge] in 1938, this [points to fence] was all big timbers, like bridge timbers and big timbers they used up at the mill. And that was the storage yard".*

Sue: *"Oh."*

Ed: *"That was in '38 when I went to work. And it was there then. So that kind of pinpoints that".*

Ed: *"Oh, yeah. I used to cut wood for him during the Depression days. Old fat Mrs. Miller—the daughter of the Blairs—you know, from the Wall's Well?"*

Sue: *"Uh-huh"*

Ed: *"Well, she had a drift fence in there. My brother and my Dad went in there and tore that drift fence down for the posts so we could have them for wood."*

Sue: *"The drift fence at. . ."*

Ed: *"At Wall's Well."*

Sue: *"Where?"*

Ed: *"It went up to the boundary of the Park Service and it run north and west."*

Sue: *"See that. . . This is in the 1940s. Then sometime in the 1950s, these railroad ties start showing up at these old ranch sites."*

Margaret: *"Yeah, because they were, the mine was going full blast. And they were discarding more and more railroad ties."*

Sue: *"Uh-huh. They start showing up at Alamo. I have a good picture of the Alamo sometime in the '40s, and then another one in the '50s, and in between, these railroad ties show up."*

Ed: *"Yeah."*

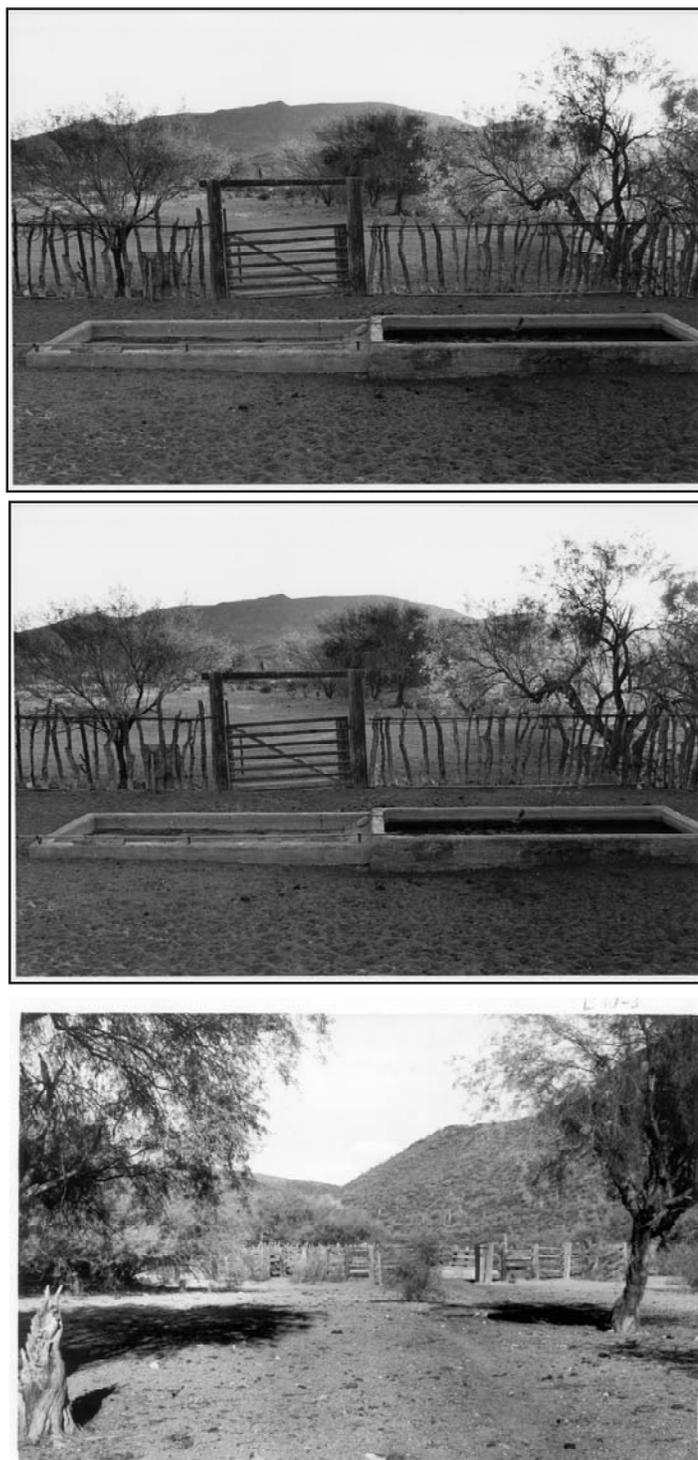
Margaret: *"And see Bobby, Bobby Gray's brother-in-law [Pete Starling] was the head of one of the. . ."*

Ed: *"He was PD foreman over the tailings dam."*

Margaret: *"And so he had access because he knew where all the movement was. So if there was ties to be sold or something, he knew about it. And Bobby'd come in and bid on 'em."*

The small residence is on the eastern side of the work shed known as the blacksmith shop, adjacent to it. About the house are examples of devices used in the desert to make life more pleasant such as a desert cooler and a screened box to help protect and preserve food. The blacksmith's shop, apparently built circa 1935, has a corrugated metal roof and a ramada. The walls are a combination of unpainted vertical wooden planks and corrugated metal. The hay barn (Bunkhouse Number Two), built circa 1935 apparently, is wooden of frame and unpainted plank construction with much lumber that appears old. The bunkhouse (Bunkhouse Number One) (Conner 1989- 1991) is just west of the windmill and water tank that is adjacent to the eastern corral. The bunkhouse is of frame construction, covered with tongue-and-groove boards. Directly across from the bunkhouse lies the tack house, built circa 1935, which is unpainted and of frame and plank construction. The ocotillo shed lies east of the blacksmith shop, directly across a dirt road that connects with the southern corral and the main house. The roof is corrugated metal. Two of the three wells/windmills that remain with their "A" frames intact are attributed to the early Henry Gray period, circa 1935, and are considered to be contributing element. The eastern corral is large, irregularly shaped and built partly of the railroad ties, partly of mesquite poles and barbed wire, and partly of laid-up mesquite limbs. The southern corral is located about 1,050 feet from the main house and constructed partly of mesquite and partly of railroad ties.

One section contains a large concrete watering trough; two sections are holding pens; and a fourth section has a chute and loading ramp. As with the other corral, it is shaped irregularly.



*Fig. 7 - Views of Corrals*

An arrastra, 7 feet in diameter, is located on the eastern side of the bunkhouse between it and the water tank that is close to the eastern corral. Most but not all of the arrastra's stones are in place; a few are missing on the southern edge forming a gap in the stonework, which is just about at earth level. The arrastra is constructed of flat-topped granitic stones set at grade; several of the support stones forming the base are missing. A 3' 9" tall machined metal axle is inset in the center of the structure and would have provided support for the grinding wheels or drag stones. Based on the material used to construct the support axle, it is likely that the feature is Anglo in origin. The arrastra is in fair condition, although there is some minimal sheetwash erosion and disturbance from vegetation. This feature is typical of arrastras in the southwestern United States and northern Mexico, and was used to grind ore as the first step in the processing and retrieval of gold or silver. Mules or oxen would have been utilized to provide motive power. The location of the feature, immediately adjacent to the bunkhouse, would have precluded its further use, and suggests that it was in-situ and abandoned prior to the construction of other buildings on the property. The NPS feature description states that it was likely constructed in 1909 or earlier, although no documentation, other than a verbal communication with historian Wilton Hoy is provided to verify this.

The hay barn/bunkhouse contains two artifacts – two fresnos – that are situated for display on the floor inside the hay barn.

A tank or charco is a natural depression that catches and holds rain water for a time. They are important water sources to wildlife and were extensively utilized by cattlemen for their livestock. The two fresnals and desert coolers that are now situated on the floor inside the hay barn were known to be in use in 1917 at José Juan Tank, sometimes called José Juan Charco. Margaret Ross and Ed Havins, lived in the area and were familiar with the Grays. They were interviewed on November 11, 2000. Margaret and Ed are asked about fresnals and 'desert coolers.



*Fig. 8- Fresnos lying in the hay barn.*

Margaret: *“A tumble-bucket. Ah, it’s a scraper. And it was pulled by two horses and a man would have to hold the handle down to dig down. And the man would judge how much the horses could pull. And he kept digging on that. It was just a charco. And he kept digging and making it deeper and deeper. It’s a tumble-bucket. It’s a scoop. And it had a handle on it. And when the horses would pull it up to where he wanted to dump it, he’d dump it. And that’s the way he built that tank.”*

Margaret: *“They made it out of chicken wire. Frame. Lumber frame and then put chicken wire around it and then put gunny sacks, burlap sacks all the way around it. And ah, on the ceiling part of it, though, they had it so that the water wouldn’t drip down into the cooler. It had to be solid on top so it wouldn’t leak on the food. Their was enough dampness and your butter didn’t stay solid, but it didn’t melt. And the milk was cool. But you had it on the shady side of the house. You didn’t put it out in the sun.”*

## LANDSCAPE

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The previous documentation does not record nor analyze the landscape for Bates Well Ranch. Quite possibly this was an oversight on the part of previous interpreters. However, the story of the site can not adequately be described without information on the landscape at the time of significance. The historical information can be inferred from photographs taken through the occupation of the site by the Gray family. We also have oral histories that begin to create a picture of how it was to live on the landscape. Today, the site is run over with grasses and native plants such as the saguaro, prickly pear and cholla cactus, mesquite and foothill palo verde trees, and creosote bush. One interesting specimen is a tamarisk tree located to the west of the small residence approximately 6 feet away from the structure. This is unusual because there are no other tamarisk trees that can be seen for miles. One can only speculate how and when it arrived and started to grow. The tamarisk tree is well known for providing shade year round and can grow well with a good deal of water.



*Fig. 1 - View of the Tamarisk tree next to the small residence.*

The following is an excerpt from an interview done in 1975 with several of the Gray family members describing the landscape and how they lived in the hostile environment they called home.

**1975 Interview:  
Bobby Gray, Ralph Gray, Henry Gray, Abe Gray**

These are the transcripts of the tape recordings of interviews with four of the Gray brothers. This set of three cassette tapes is labeled "Bobby Gray, Ralph Gray, Henry Gray, Abe Gray, January 1975." The interview seems to have occurred at Dowling Ranch and was conducted by Joyce Kelso, Organ Pipe Cactus National Monument seasonal park aide.

In this interview the brothers speak a little about the landscape, not specifically about the Bates Well area, but in general regarding their ranches and the land.

Bobby: We had a heck of a time protecting deer and sheep at the Alamo at that time. Also those senita, which we knew at that time as pitahaya. 'Course, the Monument people renamed it. People from California kept coming in and hauling all these cactus out right in around the Alamo. Diggin' them up, taking them out of there.

Henry: Took a lot out of here, too. I stopped 'em a time or two.

Bobby: We got the sheriff to stop 'em on several occasions. Didn't think it was right. Didn't like Californians anyway, I guess! Also the senita. They'd had a harder time getting to the senita on account of the roads and nobody knew where they were. Very few people knew where those senitas were. We was opposed to that, of course.

Joyce: They were taking these out to sell for decorations?

Bobby: Same thing as today. Kill all the game, they'd come in and just shoot em. Just shoot 'em down for the sport of it.

Ralph: Brother Henry was the game warden at the time. The sheep, you know. He didn't agree with that. Didn't like it. He thought the deer should grow along with everything else.

Henry: We made some guys there at the Bates Well, pay \$400, or the judge did, for killing two big sheep.

Bobby: They'd kill those sheep they'd come right there at the house. The son of a guns.

Joyce: Gosh.

Bobby: Oh yeah. Heck, yeah. Henry got mad and made 'em pay for it. 'Course you hadda go through the law.

Henry: Had to call the game warden in from Phoenix. We didn't have no game wardens in here. No such thing as a game warden.

Joyce: Did you have gardens most of the time to supply most of the food? And then the cattle? Or did you trade?

Bobby: Nope. No gardens. Didn't have enough water. Cattle drank all the water.

Abe: Was you asking about a garden or something? There was the old man's farm over there. Raised corn and pumpkins there. Right close there to where he lived. Its there yet.

Henry: Raised a lot of good watermelons there.

Bobby: Abe raised corn, stuff like that. Wheat. Several tons of wheat a year. That's different from a garden, see. Farm, dry land farm.

Abe: They watered with flood water, right?

Henry: This here country here, there's lots of palo verde, ironwood mesquite, catclaw and there's that [unintelligible] brush, lots of that. Jojoba, too. Lot of things these cattle are more of a browse cattle than they are grass cattle.



*Fig. 1 - View today north towards the Main Residence note grasses, creosote bush and the velvet mesquite.*

## MAIN RESIDENCE

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SHPO Structure No. : HS01A

Significance : High

Condition : Fair

Priority : Critical

Character Defining Features:

The house is in the shape of a T and is composed of two rooms. The larger room to the south, according to the National Register Nomination, was built in 1936 at Growler Mine (approximately 1.5 miles away). It was then moved (or more appropriately reassembled) on its present site in 1942 by Henry Gray. The smaller, north section which bisects the main room and contains the kitchen was added some time later, though no date was provide.

The building is constructed of dimensional lumber. The walls and truss roof system is 2x4s 2 feet on center. Each room has a gable roof with the small room roof intersecting the original building roof. The roof is sheathed in corrugated steel. The exterior was then sheathed 1" wood boards and chicken wire and 1" stucco finish was applied. The interior is finished in 1/2" particle board that predates drywall. This material was then painted. The kitchen is finished with wooden kitchen cabinets, a sink, and stove. There is a wood floor that utilizes 1x6 tong and groove flooring nailed to wood beams and covered with appears to be both rolled linoleum in the large room and 6" x 6" square units in the kitchen. There are two doors-one on the south elevation between two windows and one on the north elevation. And 4 large windows measuring 2.5' wide by 6.6' tall-all double-hung with a smaller 2 foot by 2 foot window over the kitchen sink.



*Fig. 1 - View of the north elevation of the Main Residence.*

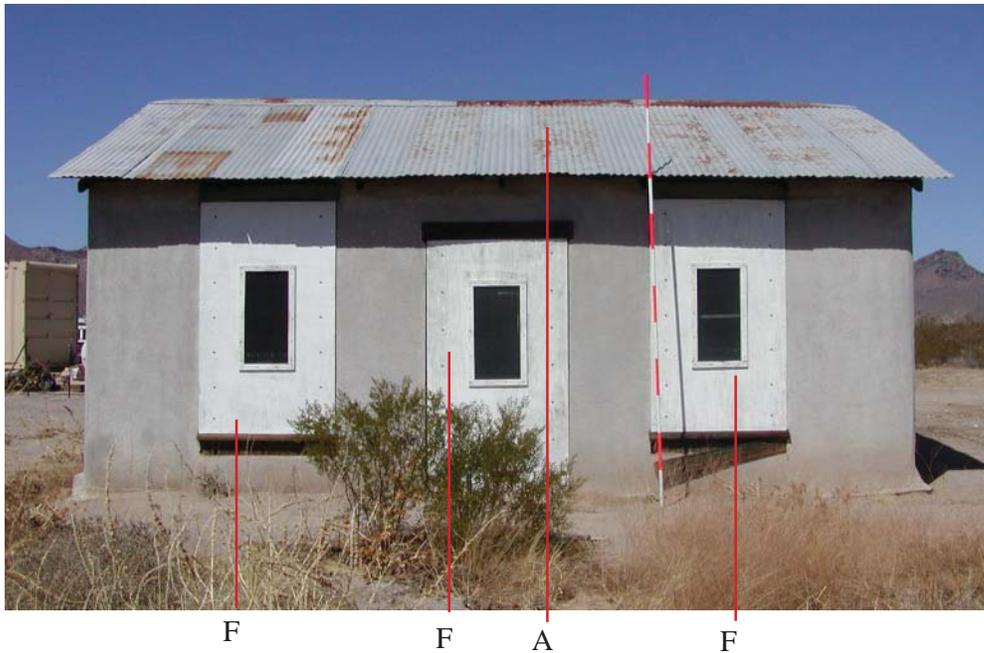
The main house is in the best shape of all the buildings on the site. The exterior is in good shape with small cracks in the stucco surface. The corrugated steel roof is in need of some attention with many holes from previous nails and rusting from age. The window openings have been boarded up from the outside with smaller 1 foot by 2 foot openings cut into the plywood and screened with quarter inch steel mesh. The glazing is gone and many of the frames are missing as well. The ceiling material has all but fallen down and there are several pieces of the wall material missing as well. The kitchen cabinets and the stove are intact. The linoleum flooring is peeling back and revealing the wood floor below. The interior is weathered from the leaking roof but there is no evidence of mold.

### **Recommendations for stabilizing**

At the very least the roof should be sealed to prevent further infiltration of water into the exterior.

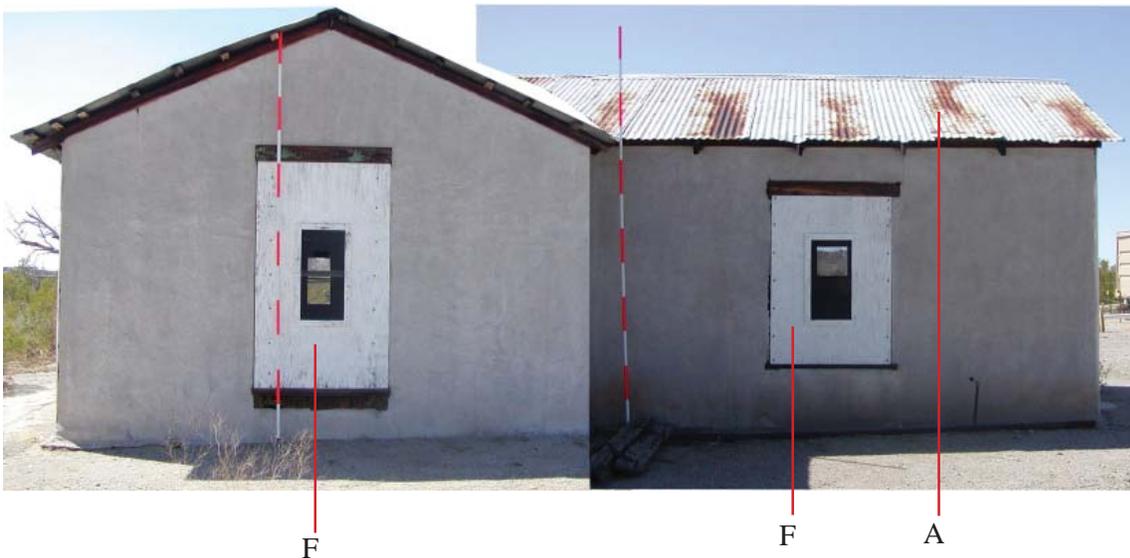


*Fig. 2 - North elevation of the Main Residence (letters refer to notes in condition assessment table below)*



*Fig. 3 - South elevation of the Main Residence (letters refer to notes in condition assessment table below)*

*Fig. 4 - East elevation of the Main Residence (letters refer to notes in condition assessment table below)*



*Fig. 5 - West elevation of the Main Residence (letters refer to notes in condition assessment table below)*



*Fig. 6 - Interior Ceiling of the Main Residence (letters refer to notes in condition assessment table below)*



Fig. 7 - Interior Large Room of the Main Residence (letters refer to notes in condition assessment table below)



D F, E D

	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
A	Corrugated Steel rusted through	Replace or seal roof from further water damage	Serious
B	Rotted/termite infested Wood	Application of biocides where severe damage.	Critical
C	Missing Components	Replace lost components	Serious
D	Water Damage	Repair/repalce roof and reinstall damaged material.	Serious
E	Broken Window Framing/ glazing	Replace and repair as needed	Serious
F	Items added after period of significance	Remove and return to original state	Critical

## SMALL RESIDENCE

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SHPO Structure No. : 056701

Significance : Medium

Condition : Very Poor

Priority : Critical

Character Defining Features: Sliding windows for glazing or screen  
¼” and ½” plywood and other wood sheathing for interior

According to the Historic Register Nomination the small residence was built 1935. However, that date is apparently when Henry Gray became the owner of the property-and may not in fact be the year the house was built. It is believed, based upon narrations by Henry that the shop was built during the period of significant. The period of significant for the ranch was 1913-1942, which was the period when Robert Gray Sr. owned and operated the ranch. It is important to note that Bates Well had been owned by others prior to the Gray's.

Located 30 feet to the east of the blacksmith shop, the small residence is a simple rectangular structure with a single pitched roof. There are two screen doors-one on each of the gable ends. Constructed of wood planks for the walls and the floor-(milling on site or from another region of the country-possible because the Southern Pacific Railroad which came to Ajo around 1916), and a corrugated metal roof.

The main residence was not installed on the site until 1942 so it is possible that this was the main house until that time. In the small residence were found several artifacts that were deemed creature comforts namely a desert cooler and a screened box to protect and preserve food. The desert cooler could possibly be the one that is presently being stored at WACC. The screened box is still on site and in reasonably good condition. We have records that indicate that this structure was occupied by a Native American named Chico who worked for the Grays on the ranch.



*Fig. 1 - View of the north elevation of the Small Residence.*

The building is constructed almost entirely of dimensional lumber. The walls and roofing structure are 2x4s 24" on center. The exterior sheathing is 1x6 tug and grove lumber with an attempt to add battens to the seams of material. The interior walls are finished in wood sheathing possibly 1/4" plywood and masonite sheathing. The flooring is 1x6 material over a 2x4 framework laid directly on top the ground. The two windows are mirror images of one another and allow for the glazing to be slid over the screened opening or pulled back to allow for air circulation. Each door opening has a double set of doors. There is a wood door on the inside which hinges into the structure and a screened door which hinges out.

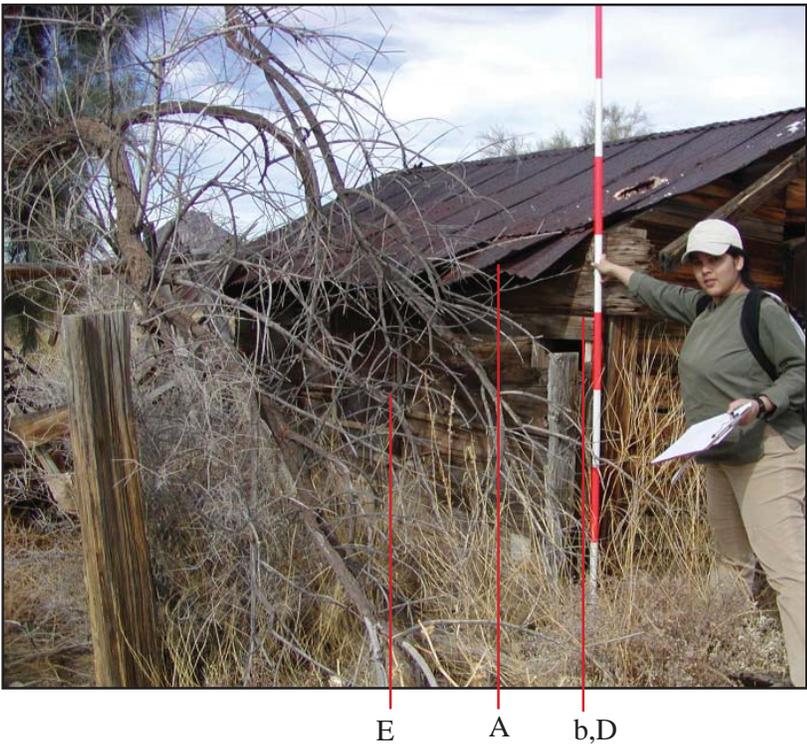
### **Recommendations for stabilizing**

The building was in poor condition in 1986 when the nomination was made and has continued to deteriorate. The southeast corner of the building has failed and the building is leaning in this direction. It is only a matter of time before the balance of the building fails as well. It is strongly recommended that building be shored up until a final determination can be made.



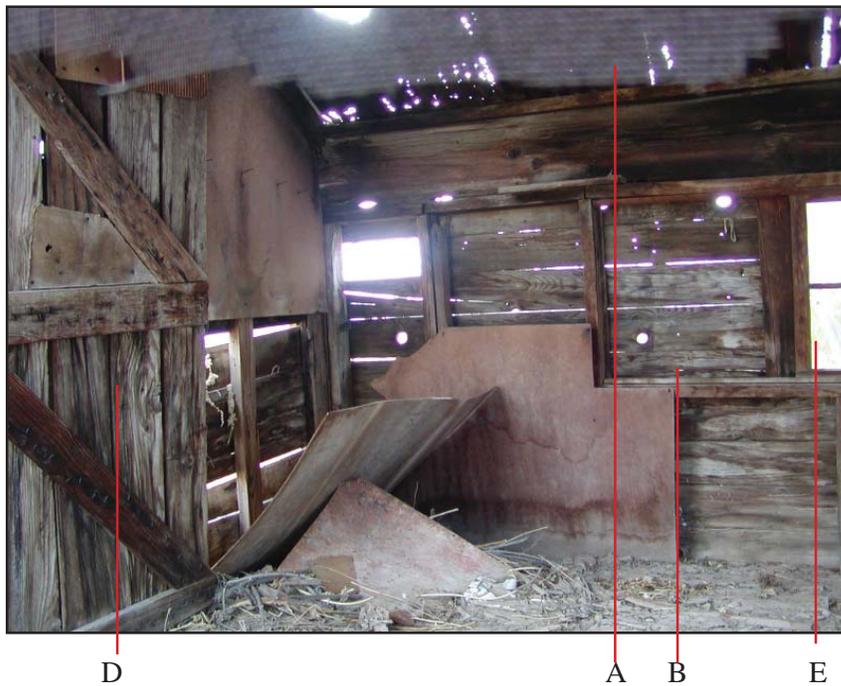
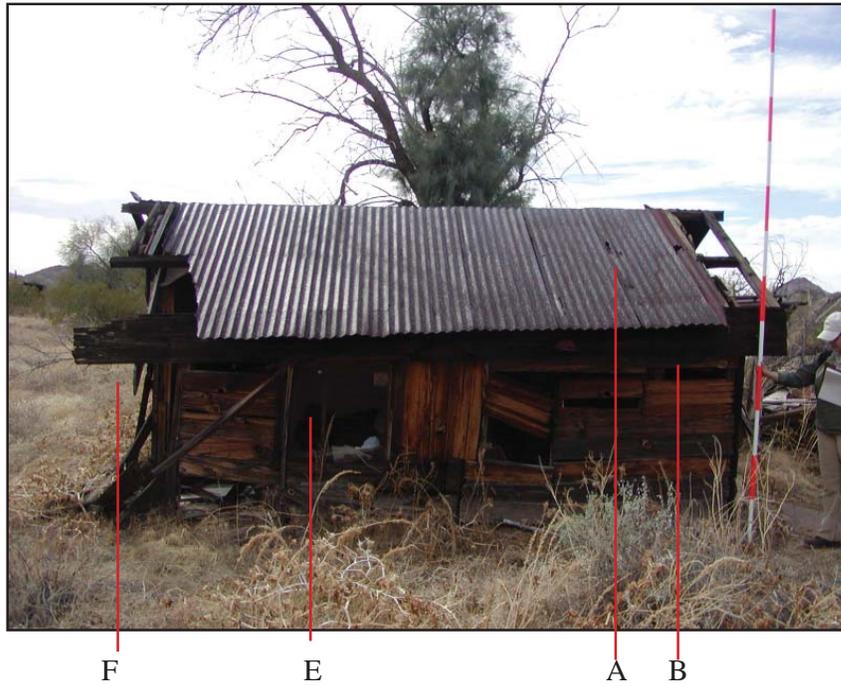
*Fig. 2 - North elevation of the Small Residence (letters refer to notes in condition assessment table below)*

*Fig. 3 - South elevation of the Small Residence (letters refer to notes in condition assessment table below)*



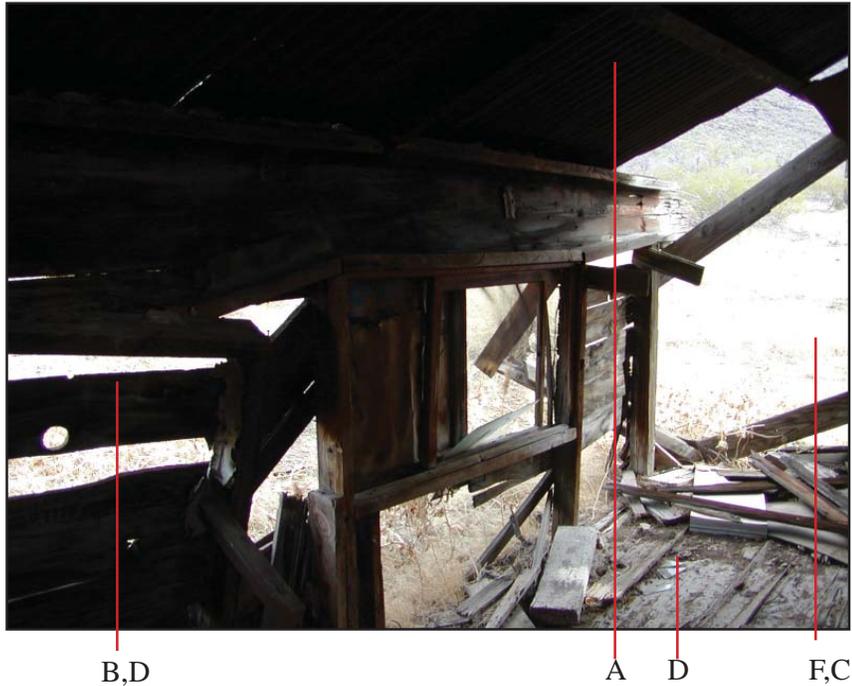
*Fig. 4 - West elevation of the Small Residence (letters refer to notes in condition assessment table below)*

*Fig. 5 - East elevation of the Small Residence (letters refer to notes in condition assessment table below)*



*Fig. 6 - Interior elevation of the Small Residence (letters refer to notes in condition assessment table below)*

Fig. 7 - Interior southeast corner of the Small Residence (letters refer to notes in condition assessment table below)



	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
A	Corrugated Steel rusted through	Replace or seal roof from further water damage	Serious
B	Rotted/termite infested Wood	Application of biocides where severe damage.	Critical
C	Missing Components	Replace lost components	Serious
D	Water Damage	Repair/repalce roof and reinstall damaged material.	Serious
E	Broken Window Framing/ glazing	Replace and repair as needed	Serious
F	Structural Failure	Repair structural damage	Critical



# BLACKSMITH SHOP

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SHPO Structure No. : 056702

Significance : Medium

Condition : Very Poor

Priority : Critical

Character Defining Features: Cedar Shake Roofing  
Ramada

According to the Historic Register Nomination the blacksmith shop was built 1935. However, that date is apparently when Henry Gray became the owner of the property-and may not in fact be the year the shop was built. It is believed, based upon narrations by Henry that the shop was built during the period of significant. The period of significant for the ranch was 1913-1942, which was the period when Robert Gray Sr. owned and operated the ranch. It is important to note that Bates Well had been owned by others prior to the Gray's. The first use for the farm was mining specifically copper mining; ranching came later.

Located near the small residence, the blacksmith shop is constructed of wood planks-(milling on site or from another region of the country-possible because the Southern Pacific Railroad which came to Ajo around 1916), a cedar shake roof, and corrugated metal. The ramada is constructed from mesquite trunks, railroad ties, old sections of steel pipe and misc. material for the shading component. The building was in poor condition in 1986 when the nomination was made and appears to be near collapse in the photos from 2005. There were recommendations to have work done on the shop to keep it from structural failure however, no work has been completed.

Blacksmithing work was traditionally associated with making tools for working on the ranch. What would be interesting to know and to look for would be artifacts that would have been made by the blacksmith to confirm its use, and to possibly determine what types of work was done at the shop..



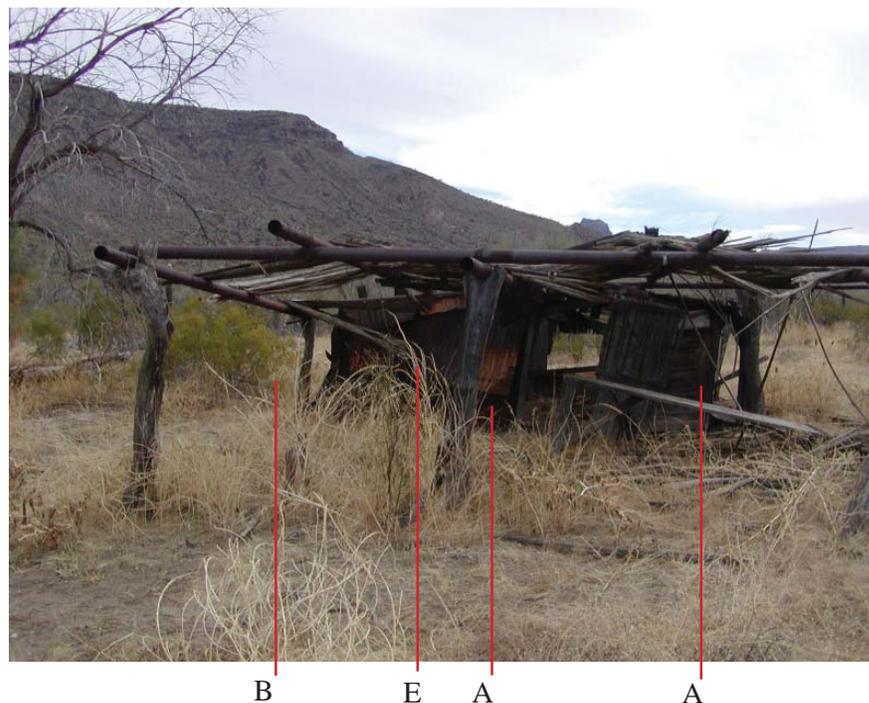
*Fig. 1 - View of the north elevation of the Blacksmith Shop with Ramada located in front of shop building.*

The Blacksmith shop, like many of the buildings on site appears to be built from found materials. The materials such as dimensional lumber, railroad ties, corrugated steel panels, and steel pipe were more than likely taken from buildings nearby-possibly Growler Mine. The materials have extraneous nails and nail holes inconsistent with the present use. There is also the use of mesquite branches and trunks for structural members and saguaro ribs for sheathing of the ramada roof. The most interesting feature of the building is the use of cedar shakes for the roof material. This material was not found anywhere else on site. The height of both structures is also interesting and believed to be the result of the size of the material used specifically the length of a railroad ties which are commonly 8' in length. Ballast 3 feet into the ground and there is 5 feet remaining-the height of the ramada and the ridge peak of the shop.

There is one door into the building off the ramada both of which face north and a window on the south side of the building. The floor is dirt and a couple of old wood benches are still present-one in the building and one under the ramada. There is also evidence of a fire on the inside, east wall of the shop.

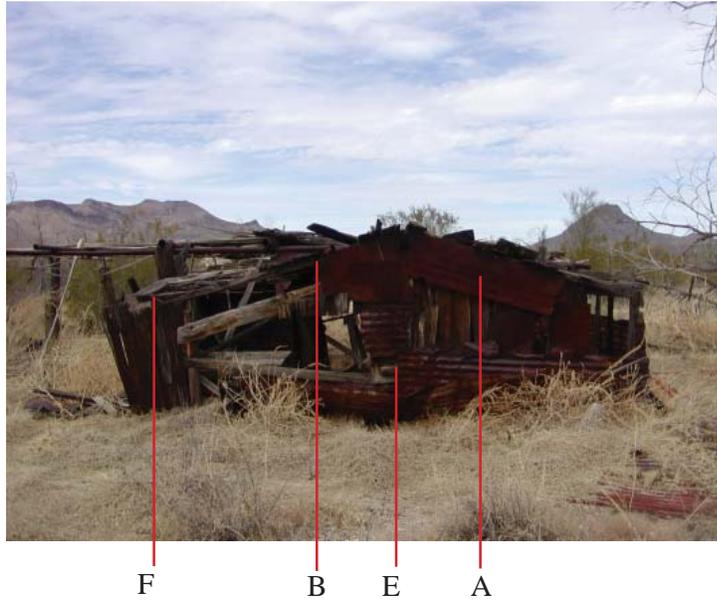
### **Recommendations for stabilizing**

Overall condition of each structure is very poor and without proper intervention the structures should be expected to collapse. Shoring up the southwest corner of the building and elements of the ramada should be undertaken until a final determination is made on the site. Additionally, trees and grasses growing in, under and within 20 feet of the building should be removed to prevent possible fire damage.

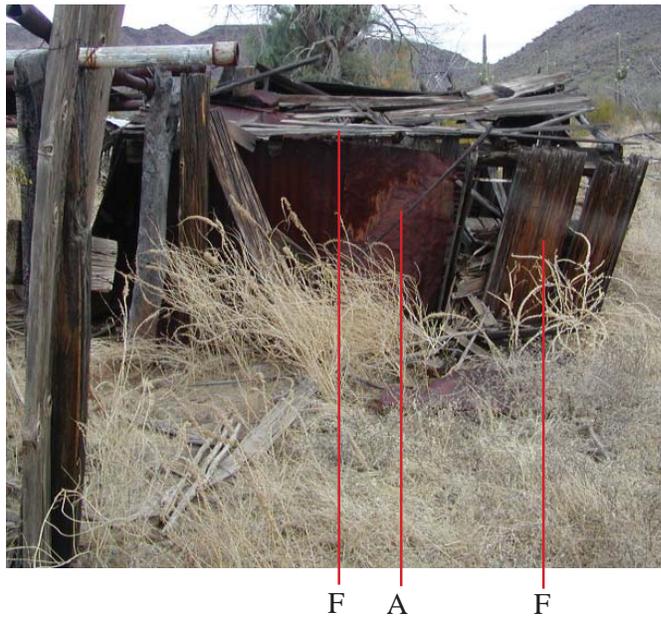


*Fig. 2 - North Elevation of Blacksmith Shop (letters refer to notes in condition assessment table below)*

# BLACKSMITH SHOP



*Fig. 3 - South Elevation of Blacksmith Shop (letters refer to notes in condition assessment table below)*



*Fig. 4 - West Elevation of Blacksmith Shop (letters refer to notes in condition assessment table below)*

Fig. 5 - East Elevation of Blacksmith Shop (letters refer to notes in condition assessment table below)



	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
A	Corrugated Steel rusted through	Replace rusted material	Serious
B	Rotted/termite infested Wood	Application of biocides where severe damage.	Critical
C	Missing Components	Replace lost components	Serious
D	Water Damage	Repair/repalce roof and reinstall damaged material.	Serious
E	Broken Window Framing/ glazing	Replace and repair as needed	Serious
F	Structural Failure	Repair structural damage	Critical

## RAMADA

The Ramada is intact but it is difficult to complete an evaluation of the structure because we do not know the original intent of the builder. The material placed on top is composed of dimensional lumber, saguara ribs, and more steel pipe. There is many pieces of this material laying on the ground below the structure and it is assumed that this material at one time sat on top of the ramada. Structurally the ramada is ridge possibly having more to do with being tied on a grid system with the steel piping than the columns' foundations.



*Fig. 6 -North Elevation of the Ramada with Blacksmith Shop behind.*



*Fig. 7 -South Elevation of the Ramada with Blacksmith Shop to the right.*



*Fig. 8 -West Elevation of the Ramada with Blacksmith Shop behind.*



*Fig. 8 -East Elevation of the Ramada with Blacksmith Shop to the left.*

# ARRASTRA

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SHPO Structure No. :

Significance : Low (Ranching) High (Mining)

Condition : Fair

Priority : None

Character Defining Features: Part of the Growler Mine Period

Location: Portions of the NE ¼ of Section 35, Township 14 South, Range 7 West (USGS Bates Well, Arizona. 7.5'/1990 (Provisional). UTM Zone 12 Coordinates: 3560832N; 316221E. The feature is located immediately adjacent to the bunkhouse at an elevation of approximately 1395 feet AMSL.

The arrastra is approximately eight feet in diameter and constructed of flat-topped granitic stones set at grade; several of the support stones forming the base are missing. A 3' 9" tall machined metal axle is inset in the center of the structure and would have provided support for the grinding wheels or drag stones. Based on the material used to construct the support axle, it is likely that the feature is Anglo in origin. The arrastra is in fair condition, although there is some minimal sheetwash erosion and disturbance from vegetation growth.

This feature is typical of arrastras in the southwestern United States and northern Mexico (see Keane and Rogge 1992), and was used to grind ore as the first step in the processing and retrieval of gold or silver. Mules or oxen would have been utilized to provide motive power. The location of the feature, immediately adjacent to the bunkhouse, would have precluded its further use, and suggests that it was in-situ and abandoned prior to the construction of other buildings on the property. The NPS feature description states that it was likely constructed in 1909 or earlier, although no documentation, other than a verbal communication with historian Wilton Hoy is provided to verify this.



*Fig. 1 - View of the Arrastra from the north*



A

*Fig. 2 - View of Arrastra from the South (letters refer to notes in condition assessment table below)*



B

*Fig. 3 - Center axle of Arrastra (letters refer to notes in condition assessment table below)*

	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
A	Missing Granite Stones	Replace with same	Serious
B	Missing arm and wheel	Replace if period becomes part of significance.	None

# BUNKHOUSE

---

SHPO Structure No. : HS01E

Significance : High

Condition : Fair

Priority : Critical

Integrity: Medium

Character Defining Features: Painted facade, glazed front window & entrance door.

The Bunkhouse is one of the contributing structures to the Bates Well Ranch, entered on the National Register of Historic Places, under Criterion A - 'Sonoran Desert Cattle Raising' and B - 'Association with Robert L.Gray Sr.'. The period of significance has been identified as 1913-1942. The Bunkhouse was constructed within this period, probably around 1935, and formed a necessary auxiliary building to support the ranching activities at Bates Well.

## Physical Description:

The structure is a simple one-room, wood-frame shed approximately 13'7" x 15'7" in size. Wooden rafters measuring 2"x 4" in cross-section provide structural support. There are four such rafters at each corner to make up a composite column. Single 2"x 4" rafters are then evenly spaced between these columns along each wall to provide additional structural support. The wall sheathing has been done by horizontal T+G (tongue & groove) siding. Unlike any other wooden structure on site, the exterior of the bunkhouse has been painted light blue with green trim. Also the structure is raised off the ground by an approximate distance of 9" and rests on wooden piers located at each corner and also along the sides. It appears that there is no formal foundation and the piers are simply dug deep into the ground.



*Fig. 1 - View of the north elevation of the Bunkhouse.*

There are three windows and one entrance door in the structure. While the entrance door and the smaller window lie on the north facade, the other two windows lie on the east and west facade. The entrance door is a five panel wooden door, painted green. The window adjacent to it is also made of wooden frame, while the shutters are multi-paned with clear glass. A relatively new wooden frame of smaller dimensions seems to have been nailed from the outside sometime back. The east window does not have any screen, and here too, a relatively new wooden frame seems to have been nailed from the outside onto the existing window. The window on the west wall is similar to the east one in terms of appearance and dimensions, except for the fact that it has a wire mesh screen that is now just barely attached to the wood frame. Also a piece of new wooden siding is nailed directly above the opening.

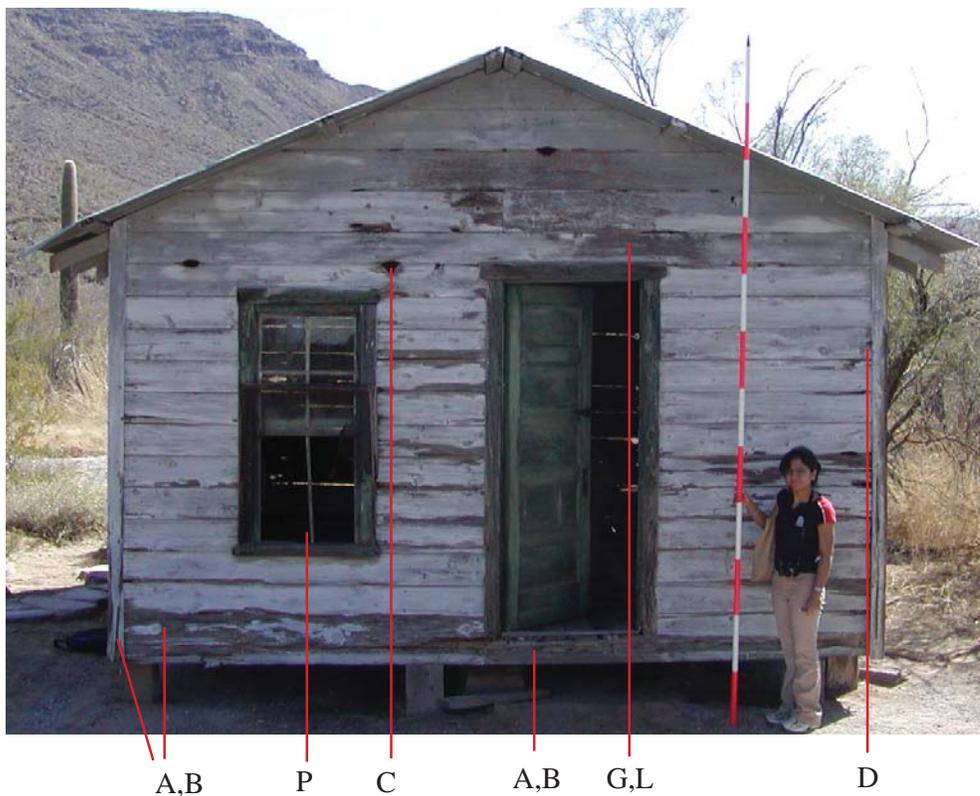
The structure has a gable roof supported by a series of nine trusses spanning in the E-W direction. These trusses support secondary 2"x 4" rafters running in the N-S direction. The covering is done with corrugated tin sheets which appears relatively new. The interior of the structure displays remnants of linoleum flooring and gypsum board panelling on the wall surfaces. While the interior board panels are completely missing from the south wall, they are present with missing parts and defects on the remaining walls. The gypsum board also appears to have been used for providing a false ceiling and covering the truss roof from inside, although at present it is intact in only a few places.

In terms of usage, as the name indicates, this structure was used as sleeping quarters by the ranchers, however there is no indication of any plumbing or electrical facilities. Considering the contextual surroundings of the structure on site, the most notable feature is the arrastra located immediately adjacent to the east wall of the bunkhouse. Dating back to the era when the site was used for mining, it seems to have fallen into disuse by the time the bunkhouse was built.

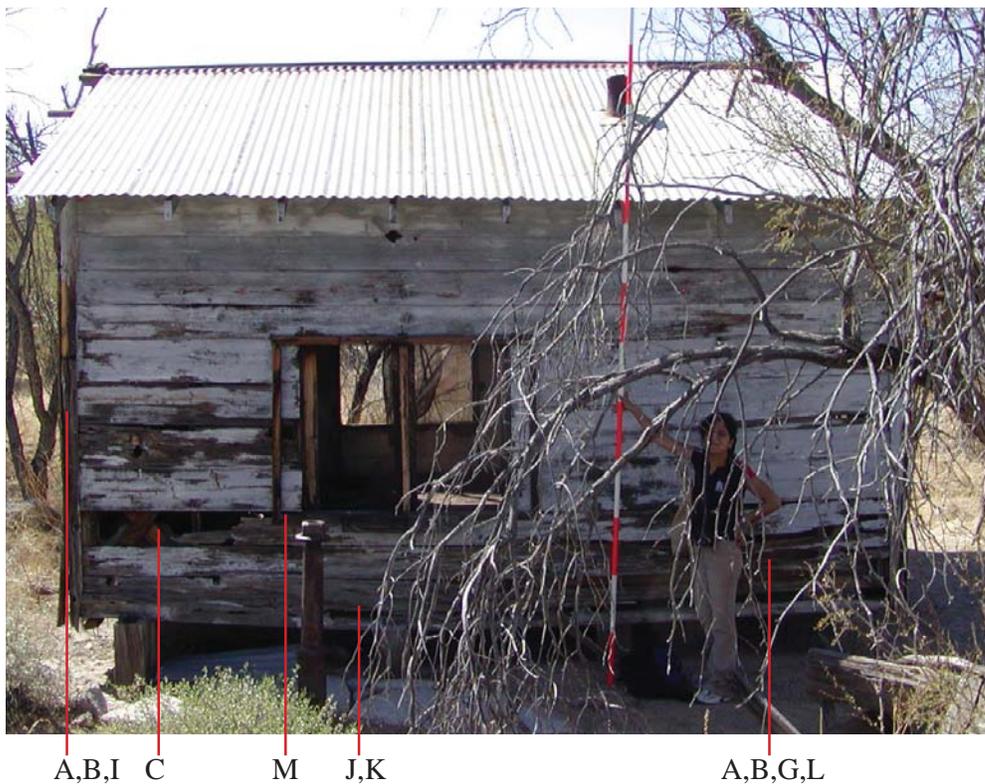
**Condition Assessment:**

At present, the condition of the structure has been assessed as fair relative to the condition of the other ranch structures on site. However, there are many pressing problems which need to be addressed. Firstly, the structure is tilting towards the rear west corner probably due to a settling of the corner pier that is holding the structure above ground. In addition, the floor is also sagging; this can be clearly noticed on the eastern side. These problems need to be remedied at the earliest as they threaten the building's structural stability. The wooden planks on the facades are also in the process of deterioration due to the combined effect of climatic forces and the impact of microorganisms. The roof sheeting is relatively new, although it displays signs of disattaching itself on the rear. The interior of the building is also in a state of disrepair. The gypsum board paneling on the walls and ceiling is completely missing in parts and also suffers from damage due to water seepage. Only remnants of the original linoleum flooring are left behind and, as mentioned earlier, the flooring also suffers from sagging.

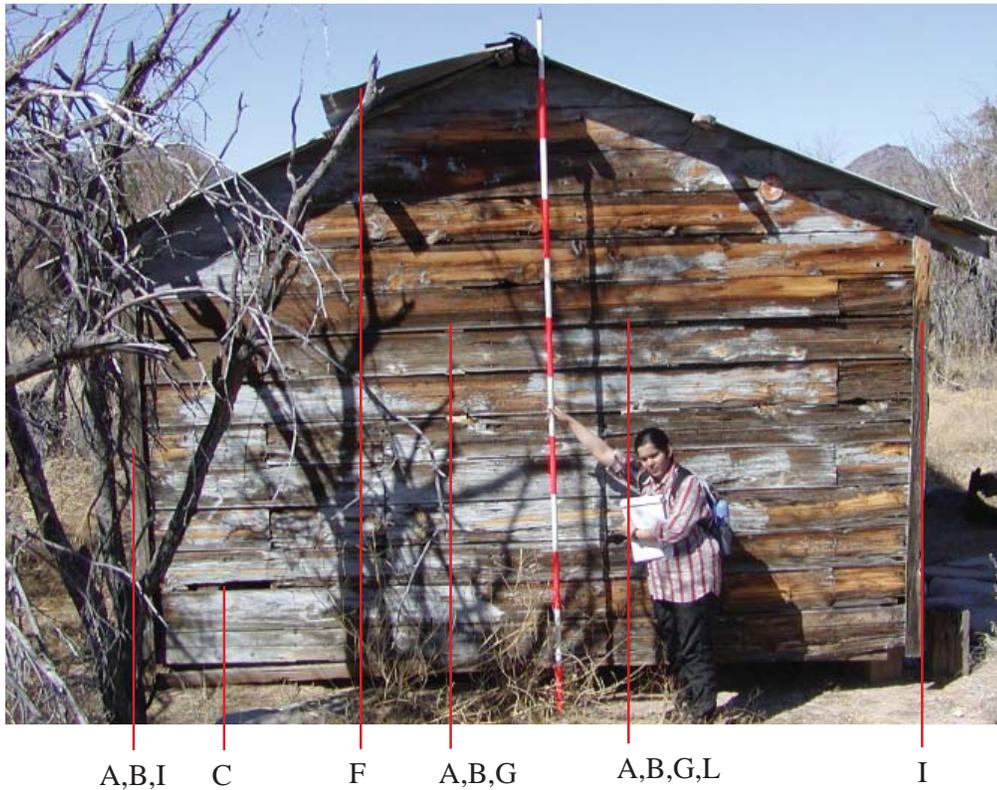
*Fig. 2 - North elevation of the Bunkhouse  
(Letters refer to notes in condition assessment table ahead)*



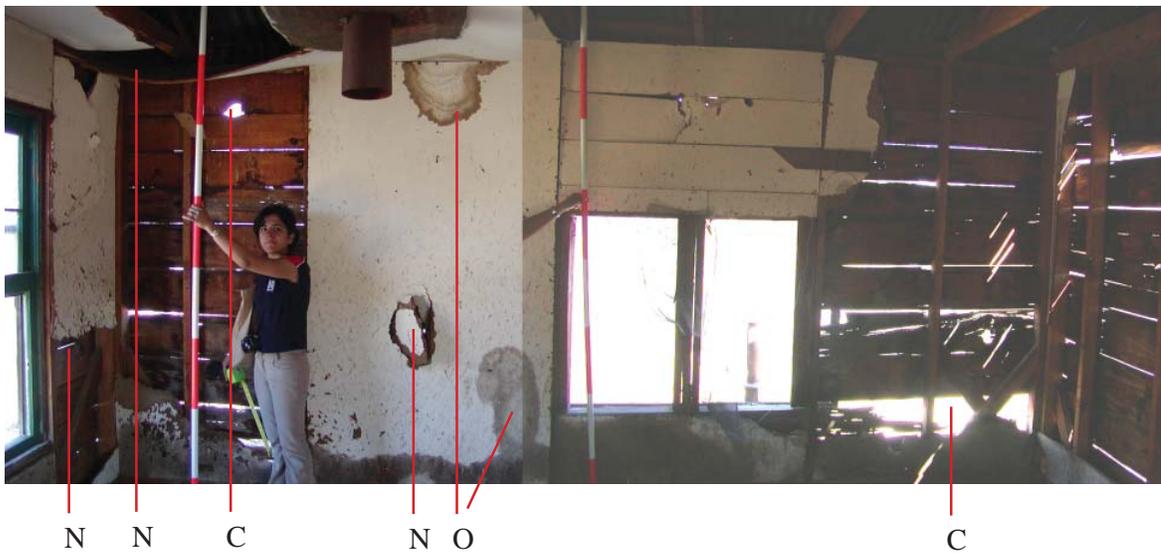
*Fig. 3 - East elevation of the Bunkhouse  
(Letters refer to notes in condition assessment table ahead)*



*Fig. 4 - South elevation of the Bunkouse  
(Letters refer to notes in condition assessment table ahead)*



*Fig. 5 - Interior elevation of East wall of the Bunkouse  
(Letters refer to notes in condition assessment table ahead)*





*M, A, B. Detail view of window on west elevation. Note the wire mesh screen coming off & new board above*



*View of the entrance door from the inside.*



*View of the arrastra situated right next to the east wall of the Bunkhouse*



*M. View of the window on north wall. Note the new frame nailed on top .*



*View of the roof trusses. Note the relatively new metal sheeting on the roof*

	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
A	Water damage to wood paneling and facia including warping and splintering.	Correction of the source of water Replace the wooden planks where severely damaged; match the size & type of wood to existing.	Serious
B	Rotting of wood due to microorganisms/ pests (also termite) infestation.	Application of biocides where severe damage.	Serious
C	Missing parts from wood planks	Replace entire plank where substantial parts missing or structural stability is endangered.	Critical
D	Corrosion and deterioration of wood around iron nails on edges.	Apply anti-rust coating on nails before replacement planks are installed.	Serious
F	Falling apart of the metal sheets on the roof	Replace/reattach the portions that are coming apart. Use identical sheeting for replacement	Critical
G	Staining of wood due to water damage.	Correction of the source of water; pay attention to roof leaks & holes in wall panels.	Serious
I	Tilting of the structural wooden posts leading to de-stability & bending of the shed sideways.	Stabilise the structure by realigning the main structural posts. If necessary reassess the condition of the tie-beam and strengthen it to bind the structure	Critical
J	Falling apart of the wooden planks near the base of the structure.	These pieces should be nailed back to the structure.	Critical
K	Sagging of the floor.	The cause of the problem should be addressed , for e.g. the whole floor should be repaired.	Critical
L	Missing Paint coat	Reapply paint on the facades. It should exactly match the old one in appearance & properties.	Serious
M	New window frames nailed onto original facade	New parts should be removed after being well documented	Serious
N	Missing pieces from the Gypsum board paneling & false ceiling in the interior	The paneling should be replaced if too severely damaged	Serious
O	Water damage on the Gyp-board	Address source of seepage & replace board if extensively damaged	Serious

# HAY BARN

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SHPO Structure No. : HS01D

Significance : High

Condition : Fair

Priority : Critical

Integrity: Medium

Character Defining Features: Horizontal wooden plank siding, concrete blocks at base.

The Hay Barn is one of the contributing structures to the Bates Well Ranch, entered on the National Register of Historic Places, under Criterion A - 'Sonoran Desert Cattle Raising' and B - 'Association with Robert L.Gray Sr.'. The period of significance has been identified as 1913-1942. The Hay Barn was constructed within this period, probably around 1935, and formed a necessary auxiliary building to support the ranching activities at Bates Well.

## Physical Description:

The structure is a large one-room wood frame shed measuring approximately ~~XXXXXXXX~~ in size. It is supported by 2" x 4" wooden rafters providing a vertical framework for the horizontal plank siding that is nailed on top. The structure is completely exposed, thus while the plank siding is visible on the outside, the 2" x 4" rafters can be seen on the inside. Also on the inside, shoring can be seen on the south wall, probably introduced at a later date to provide additional support. The structure is lifted of the ground by approximately 6" and is supported on concrete blocks at different points along the edges.



Fig. 1 - View of the south elevation of the Hay Barn

There are four windows and two doors in the structure. The doors lie on the south and west facade each, while there are two windows on the north side and two on the east facade. The west door is a single panel wooden one, painted white and appears to have been salvaged from elsewhere, where it was probably used as an interior door. The door frames appear to have been made out of relatively new lumber. The southern half of the west facade also displays plank siding that looks relatively new. Unlikely the door on the west facade, the one on the south wall is made out of corrugated metal sheet and is set in a wooden frame. The window towards north on the west facade, has a wire mesh screen and a high sill level, while the one adjacent to it is covered on the outside by a corrugated metal screen, and has a remarkably low sill level. Similarly, windows on the north wall too have different sill heights, with the one towards east having been set lower than the one on the west. Both these windows have no screens.

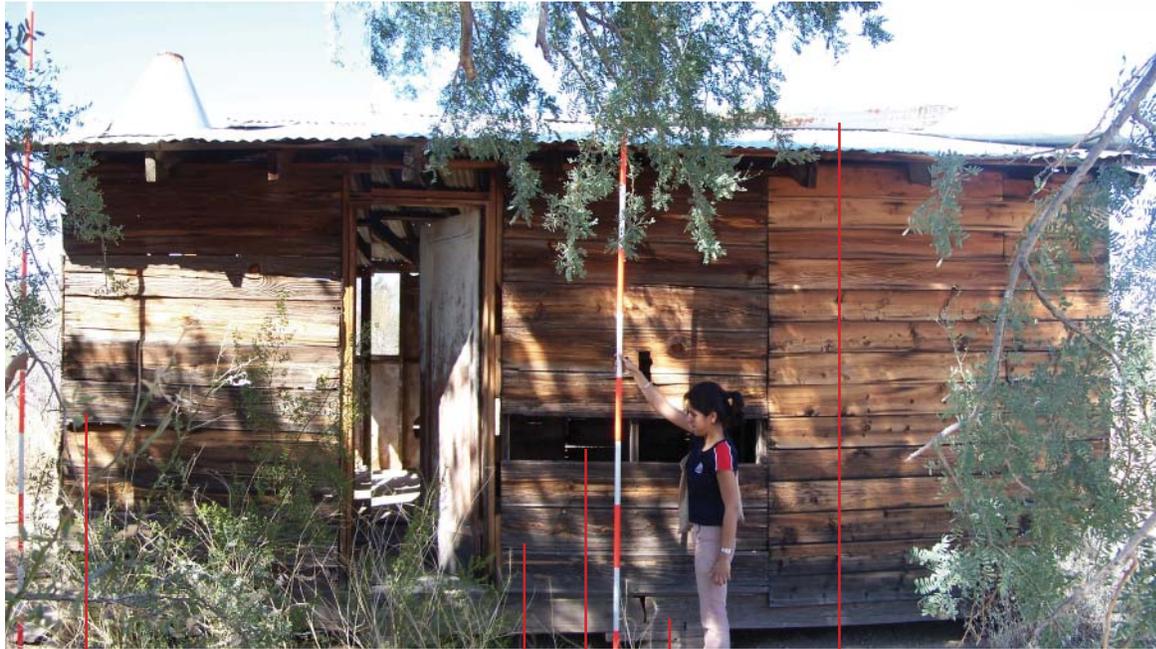
The structure has a gable roof supported by a series of ten trusses spanning in the E-W direction. These trusses support secondary 2"x 4" rafters running in the N-S direction. The covering is done with corrugated tin sheets which appears relatively new. There is a conical aperture in the northwest corner. The interior of the structure displays wooden plank flooring and the walls display remnants of gypsum board panelling.

In terms of usage, as the name indicates, this structure was used as a hay barn by the ranchers for storing fodder. Two metal containers can also be found inside which were most probably used for feeding animals. Another alternative use that has been suggested is a bunkhouse, and the structure was probably used by the ranchers for lodging purposes as well.

**Condition Assessment:**

At present, the condition of the structure has been assessed as fair relative to the condition of the other ranch structures on site. However, there are many pressing problems which need to be addressed. Similar to the bunkhouse, the hay barn too, is a structure that is raised above the ground. In this case, concrete blocks have been used for this purpose. However, the floor of the structure is sagging, leading to structural de-stability. This needs to be immediately addressed. Another pressing problem is the extensive weathering damage that has occurred to the horizontal plank siding. The planks are missing at many places leading to instability and water seepage inside the shed. The corrugated metal roof is also coming off at a few places and suffers from rusting.

Fig. - West elevation of the Hay Barn  
(Letters refer to notes in condition assessment table ahead)

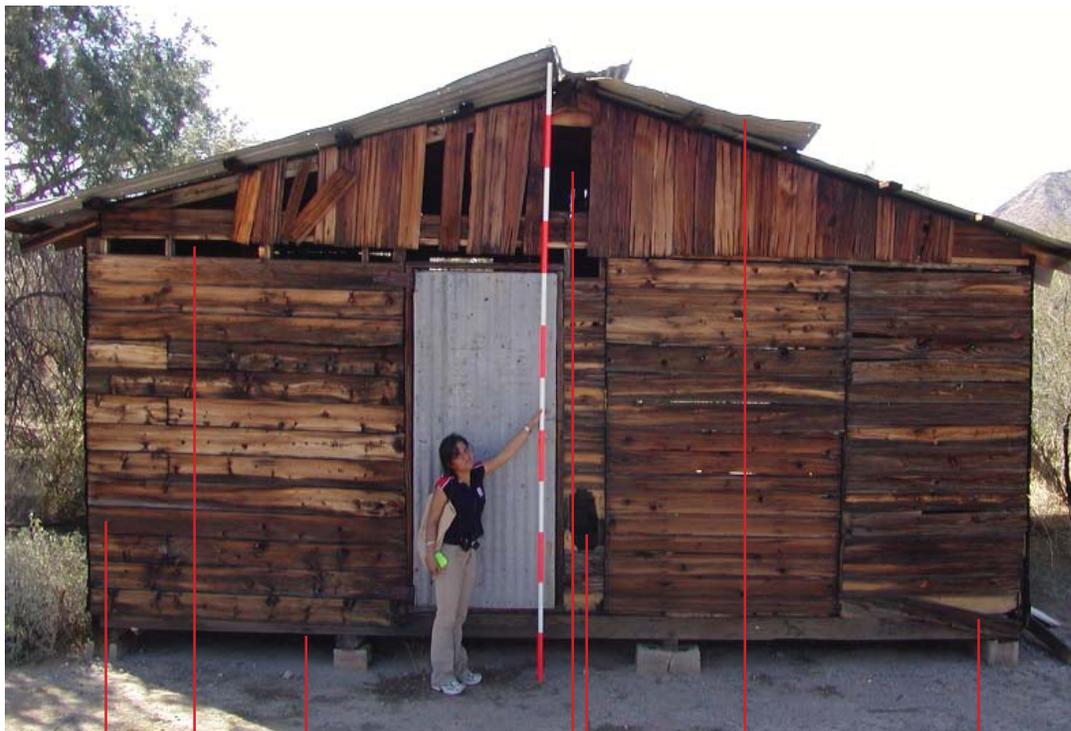


A,B,D

A,B,G C K,G

F

Fig. - South elevation of the Hay Barn  
(Letters refer to notes in condition assessment table ahead)



A,B,D

C

K,G

C

F

J

Fig. 4 - North elevation of the Hay Barn  
 (Letters refer to notes in condition assessment table ahead)

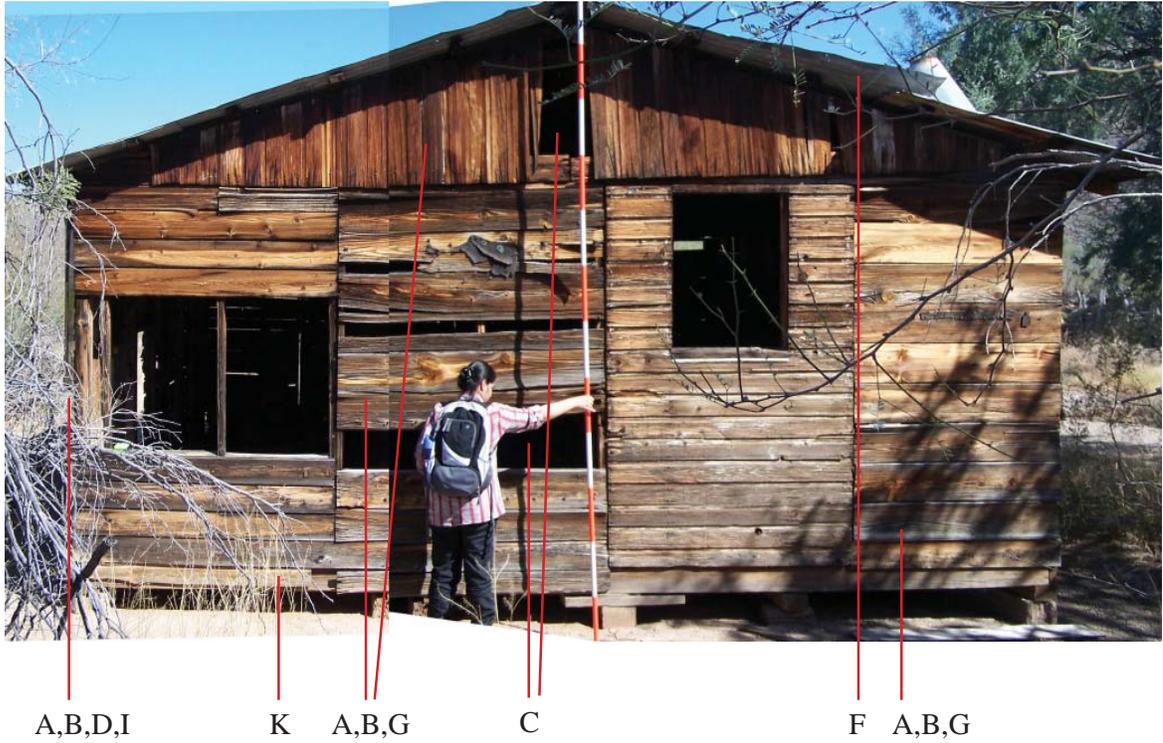
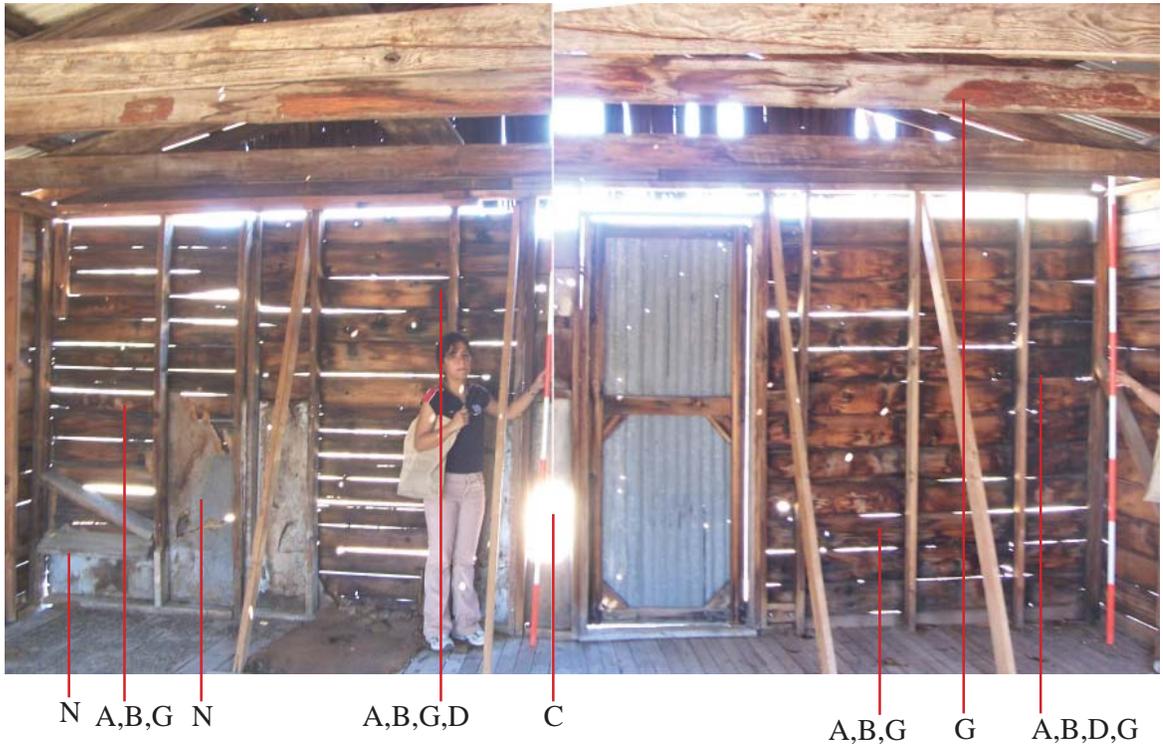


Fig. - Interior elevation of South wall of the Hay Barn  
 (Letters refer to notes in condition assessment table ahead)





*J. Detail view of north facade. Note the plank that is falling apart off near the base of the structure*



*E. Detail view of metal roofing from the interior. Notice the rusting of sheets.*



*View of the metal containers lying inside the Hay Barn.*

	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
A	Water damage to wood paneling and fascia including warping and splintering.	Correction of the source of water Replace the wooden planks where severely damaged; match the size & type of wood to existing.	Serious
B	Rotting of wood due to microorganisms/ pests (also termite) infestation.	Application of biocides where severe damage.	Serious
C	Missing parts from wood planks	Replace entire plank where substantial parts missing or structural stability is endangered.	Critical
D	Corrosion and deterioration of wood around iron nails on edges.	Apply anti-rust coating on nails before replacement planks are installed.	Serious
E	Rusting of the corrugated metal roof due to water damage	Replace the sheets which are severely rusted.	Serious
F	Falling apart of the metal sheets on the roof	Replace/reattach the portions that are coming apart. Use identical sheeting for replacement	Critical
G	Staining of wood due to water damage.	Correction of the source of water; pay attention to roof leaks & holes in wall panels.	Serious
I	Tilting of the structural wooden posts leading to de-stability & bending of the shed sideways.	Stabilise the structure by realigning the main structural posts. If necessary reassess the condition of the tie-beam and strengthen it to bind the structure	Critical
J	Falling apart of the wooden planks near the base of the structure.	These pieces should be nailed back to the structure.	Critical
K	Sagging of the floor.	The cause of the problem should be addressed , for e.g. the whole floor should be repaired.	Critical
N	Missing pieces from the Gypsum board paneling & false ceiling in the interior	The paneling should be replaced if too severely damaged	Serious

# TACK HOUSE

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SHPO Structure No. : HS01F

Significance : High

Condition : Fair

Priority : Critical

Integrity: Medium

Character Defining Features: Horizontal plank siding, saddle-post on the interior.

The Tack House is one of the contributing structures to the Bates Well Ranch, entered on the National Register of Historic Places, under Criterion A - 'Sonoran Desert Cattle Raising' and B - 'Association with Robert L.Gray Sr.'. The period of significance has been identified as 1913-1942. The Tack House was constructed within this period, probably around 1935, and formed a necessary auxiliary building to support the ranching activities at Bates Well.

## **Physical Description:**

The structure is a simple one-room, wood-frame shed approximately 12' x 12' in size. There are wooden posts ( 4" x 4") at each corner and also at the vertical edges of the door and window openings. Forming the primary structural support of the structure, these wooden posts are then sheathed by horizontal plank siding nailed from the outside. The wood (probably Douglas fir/ pine) is unpainted and some of the lumber has a relatively new appearance. There appears to be no formal foundation and the wooden posts are most probably simply dug inside the ground. There are traces of a 2" x 4" tie beam bracing the perimeter of all the wooden posts and lying just beneath the ground surface. The inside of the structure has a an rough mud floor.



*Fig. 1 - View of the southeast corner of the Tack House.*

There is a window each on the north and west walls, while an entrance door lies on the south wall. The windows do not have screens and the entrance door too has become unhinged and presently lying inside the building. The structure has a gable roof supported by a series of five trusses spanning in the E-W direction. These trusses support secondary 2" x 4" rafters running in the N-S direction. The covering is done with corrugated tin sheets which have a number of little nail-holes in them, probably because they were already being used elsewhere and salvaged to be used on this site. The gable roof has two enclosed platforms on each N-S end. Probably originally used for storage these platforms presently house bird nests.

In terms of usage, this structure was probably used by the ranchers for storing their equipment (tacks, saddles etc.). This is corroborated by the saddle-post in the interior of the building. This post approximately 3.5' high has remnants of a cloth/leather cover nailed to the surface. The structure is surrounded by dried-up mesquite trees.

**Condition Assessment:**

At present, the condition of the structure has been assessed as fair relative to the condition of the other ranch structures on site. However, there are many pressing problems which need to be addressed. Firstly, the shed has tilted sideways and suffers from bulging of the wooden posts leading to structural de-stability. The wooden planks suffer from extensive rotting and staining. The major causes are animals / pests and termite infestation. The other major cause is moisture damage. As a result there is rusting at the juncture of wood & iron nails, leading to eventual corrosion of the surrounding wood. Thus either entire planks get disjointed or else rotten pieces fall off leading to gaping holes in the exterior facade. The metal roof displays rusting too. Also, the surrounding mesquite trees are pretty close to the building surface barring the south elevation, and may pose a fire hazard.



*Fig. 2 - View of the saddle bar in the interior*

Fig. 3 - South elevation of the Tack House (letters refer to notes in condition assessment table below)

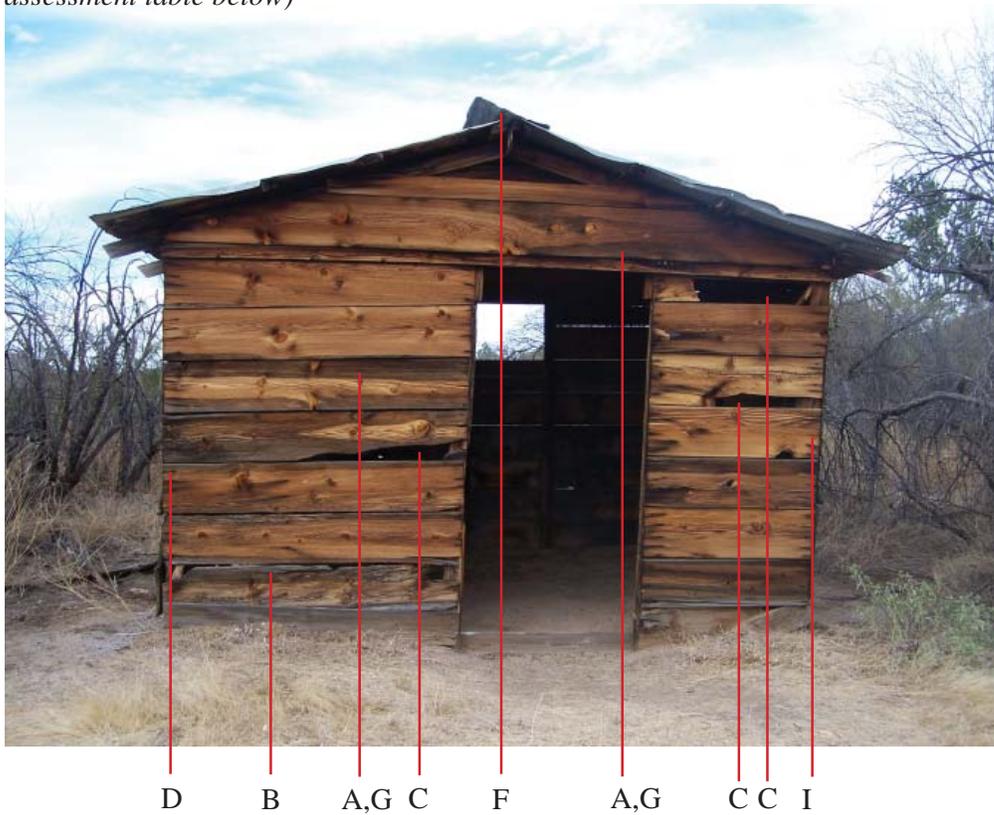
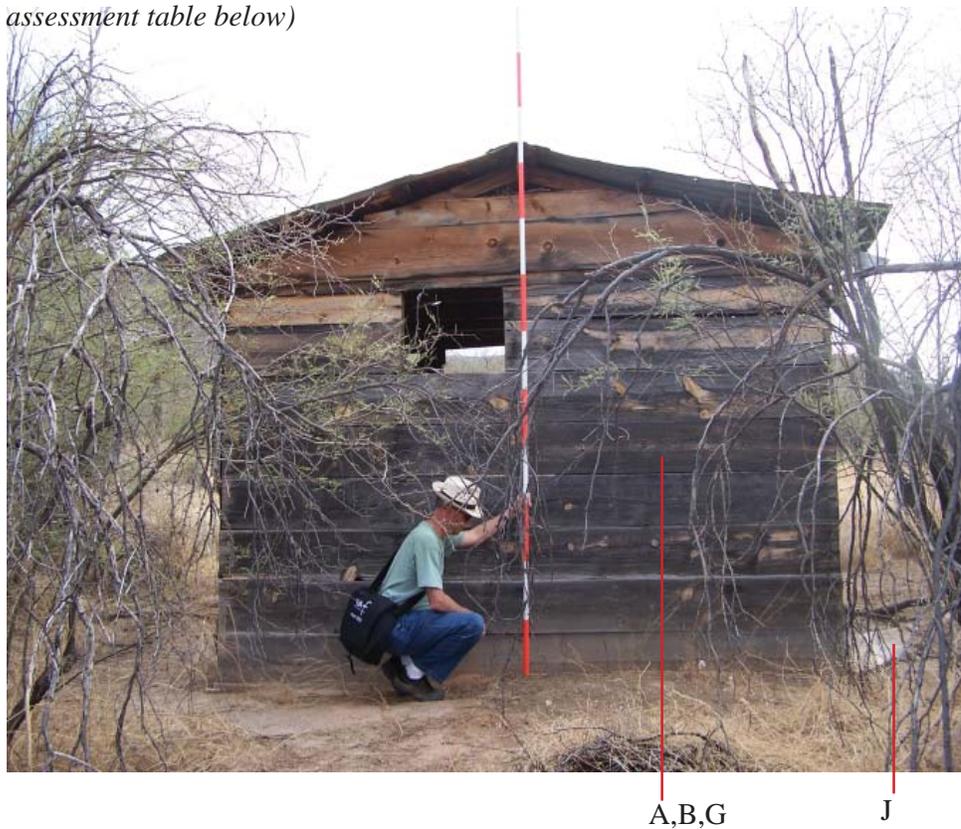


Fig. 4 - North elevation of the Tack House (letters refer to notes in condition assessment table below)



*(letters in the foll. photographs refer to notes in condition assessment table below)*



*E. Rusting of the corrugated metal roof due to water damage*



*H. Dis-hinged entrance door lying inside the structure.*



*J. Falling apart of the wooden planks near the base of the structure.*



*B. Rotting of wood due to microorganisms/ pests (also termite) infestation.*



*A,B,C. Water damage to wood paneling and fascia including warping and splintering & rotting due to microorganisms/ pests.*



*Bird nests in the roof platform inside the structure*

	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
A	Water damage to wood paneling and fascia including warping and splintering.	Correction of the source of water Replace the wooden planks where severely damaged; match the size & type of wood to existing.	Serious
B	Rotting of wood due to microorganisms/ pests (also termite) infestation.	Application of biocides where severe damage.	Critical
C	Missing parts from wood planks	Replace entire plank where substantial parts missing or structural stability is endangered.	Serious
D	Corrosion and deterioration of wood around iron nails on edges.	Apply anti-rust coating on nails before replacement planks are installed.	Serious
E	Rusting of the corrugated metal roof due to water damage	Replace the sheets which are severely rusted.	Serious
F	Falling apart of the metal sheets on the roof esp. the central ridge	Replace/reattach the portions that are coming apart. Use identical sheeting for replacement	Critical
G	Staining of wood due to water damage.	Correction of the source of water; pay attention to roof leaks & holes in wall panels.	Serious
H	Dis-hinged entrance door	Reattach the door.	Critical
I	Tilting of the structural wooden posts leading to de-stability & bending of the shed sideways.	Stabilise the structure by realigning the main structural posts. If necessary reassess the condition of the tie-beam and strengthen it to bind the structure	Critical
J	Falling apart of the wooden planks near the base of the structure.	These pieces should be nailed back to the structure.	Critical

## OCOTILLO SHED

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SHPO Structure No. : HS01G

Significance : High

Condition : Poor

Priority : Critical

Integrity: Low

Character Defining Features: Ocotillo / saguaro ribs held together by barbed wire.

The Ocotillo Shed is one of the contributing structures to the Bates Well Ranch, entered on the National Register of Historic Places, under Criterion A - 'Sonoran Desert Cattle Raising' and B - 'Association with Robert L.Gray Sr.'. The period of significance has been identified as 1913-1942. The Ocotillo Shed was constructed within this period, probably around 1935, and formed a necessary auxiliary building to support the ranching activities at Bates Well.

### **Physical Description:**

The structure known as the Ocotillo shed at the Bates Well Ranch is a small shed made out of ocotillo ribs. Similar structures have been more generically referred to as *jacal* in the southwest which literally means a hut with a thatched roof and walls made of upright poles or sticks covered and chinked with mud or clay. Although not completely fitting in with this description, the ocotillo shed draws from it. The primary structure is made up of eight railroad ties fixed vertically upright to serve as columns or posts. The walls are then made up ocotillo & saguaro ribs held together by barbed wire. In addition sheet metal (some of it even salvaged from advertising boards), plywood and chicken wire make up the walls.



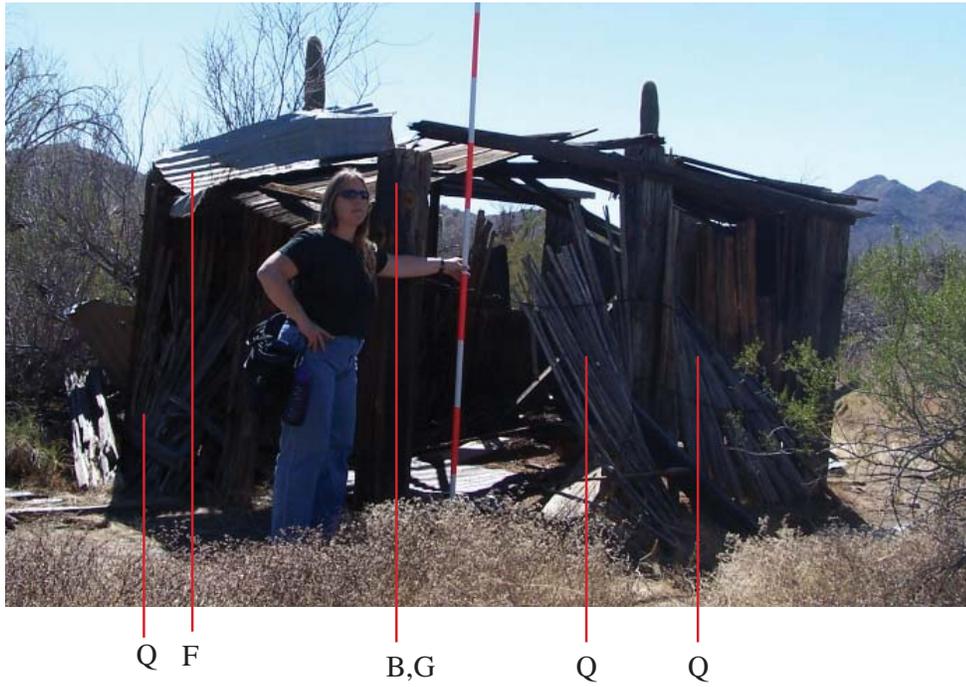
*Fig. 1 - View of the north elevation of the Ocotillo Shed*

The structure has a very low gable roof made up of wooden rafters and covered with plywood & wood planks. There are some remnants lying next to the structure of what appears to have been a wooden entrance door. In terms of usage, It is not very clear what specific function this building was put to by the ranchers.

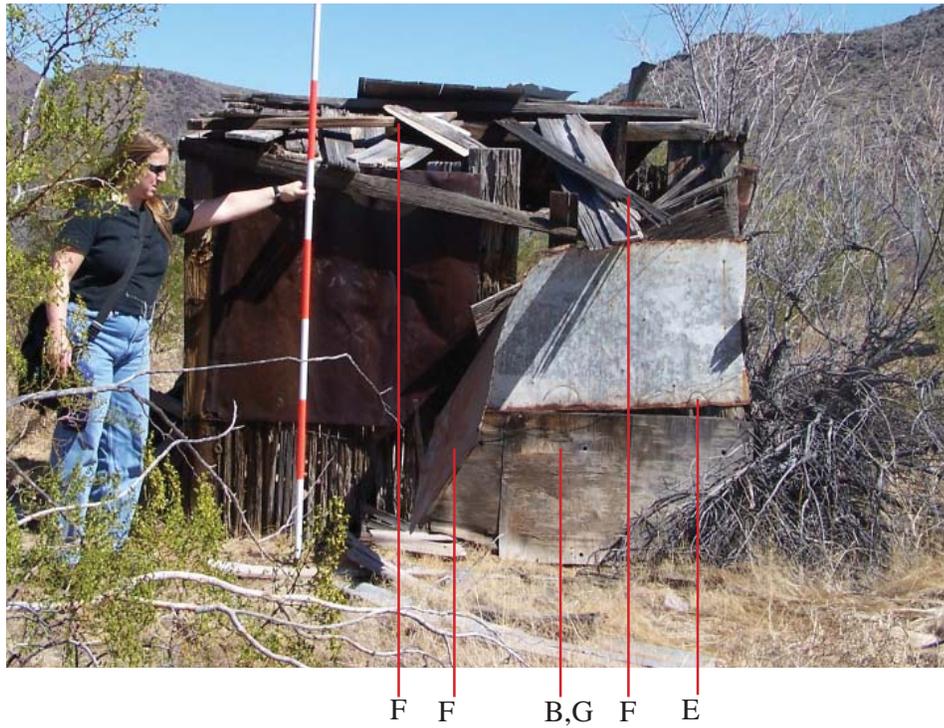
**Condition Assessment:**

At present, the condition of the structure has been assessed as poor relative to the other ranch structures on site. This is primarily because of the severe structural damage that it has suffered. The walls are all falling apart with the fallen pieces all lying around the site. The causes for this are the biodeterioration of the saguaro ribs as well as the coming off of the barbed wire that was holding them together. Also the metal sheets that formed parts of the wall are all coming apart. In addition the roof of the structure is in very bad shape and the covering material is almost absent. If immediate steps to stabilize this structure are not taken, it may very soon be reduced to a heap of materials lying on the ground.

*Fig. -North elevation of the Ocotillo Shed  
(Letters refer to notes in condition assessment table ahead)*



*Fig. -West elevation of the Ocotillo Shed  
(Letters refer to notes in condition assessment table ahead)*



*Fig. 4 South elevation of the Ocotillo Shed  
(Letters refer to notes in condition assessment table ahead)*



*Fig. East elevation of the Ocotillo Shed  
(Letters refer to notes in condition assessment table ahead)*





*View of the inside of the Ocotillo shed*



*View of the saguaro ribs tied with barbed wire that make up the walls of the shed.*



*View showing the tilting of the walls*



*View of the parts of the structure lying scattered around on the site*

	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
B	Rotting of wood due to microorganisms/ pests (also termite) infestation.	Application of biocides where severe damage.	Serious
C	Missing parts from wood planks	Replace entire plank where substantial parts missing or structural stability is endangered.	Critical
D	Corrosion and deterioration of wood around iron nails on edges.	Apply anti-rust coating on nails before replacement planks are installed.	Serious
E	Rusting of the corrugated metal roof due to water damage	Replace the sheets which are severely rusted.	Serious
F	Falling apart of the metal sheets on the roof and walls	Replace/reattach the portions that are coming apart. Use identical sheeting for replacement	Critical
G	Staining of wood due to water damage.	Correction of the source of water; pay attention to roof leaks & holes in wall panels.	Serious
I	Tilting of the structural wooden posts leading to de-stability & bending of the shed sideways.	Stabilise the structure by realigning the main structural posts. If necessary reassess the condition of the tie-beam and strengthen it to bind the structure	Critical
Q	The tilting of rib - walls	Replace the saguaro/ ocotillo ribs that are missing or damaged and re-attach them using barbed wire, then prop up the wall again	Critical

## BATES WELL

---

SHPO No. : HS01P

Significance : Fair

Condition : Fair

Priority : Critical

### Character Defining Features:

The Bates Well is one of the contributing structures to the Bates Well Ranch, entered on the National Register of Historic Places, under Criterion A - 'Sonoran Desert Cattle Raising' and B - 'Association with Robert L. Gray Sr.'. The period of significance has been identified as 1913-1942. The Bates Well was probably constructed within this period and formed a necessary structure to support the ranching activities at Bates Well.

W. Bates, a settler, maybe a Confederate soldier, most likely dug the original Bates Well in 1886, according to Jerome Greene in his 1977 Historic Resource Study, Organ Pipe Cactus National Monument, Arizona (p 89). Soon after ownership of the area transferred to Reuben Daniels, however, this original well collapsed. Daniels dug a new well, likely in 1915, with the assistance of a Charles G. Puffer, maintaining the name of Bates for both the well and the ranch. Little superstructure remains of this well today.

### Physical Description:

The 4'x8' concrete pad poured at the top of the well is the most distinguishing element. Two wooden blocks and three metal clips are still attached to the slab accompanying the actual well cap of rusted iron set into the concrete. Adjacent to the slab is a wooden box framed with metal measuring 14"x2'9"x1'7" that may have once supported the water tank. The metal water tank itself is located a short distance away. It's matte silver surface shows the seams where metal plate attaches to metal plate. The cylindrical tank is topped by a conical hat, through which a small circular hole is cut to allow access.

### Condition Assessment:

At present, the condition of the structure has been assessed as fair relative to the condition of the other ranch structures on site. There are few visual clues however to associate the individual pieces with what was once a critical element of daily ranch life for the Bates Well Ranch. More than just their adjacency is required to help visitors understand its importance. The unknown state of the well shaft itself ought then to be assessed and the possibility of reinstating the function of the well ought to be considered.



*Fig. 1 - View of concrete slab of covered well and wooden generator platform*

Fig. 3 - East elevation of the water tank  
(letters refer to notes in condition assessment table)

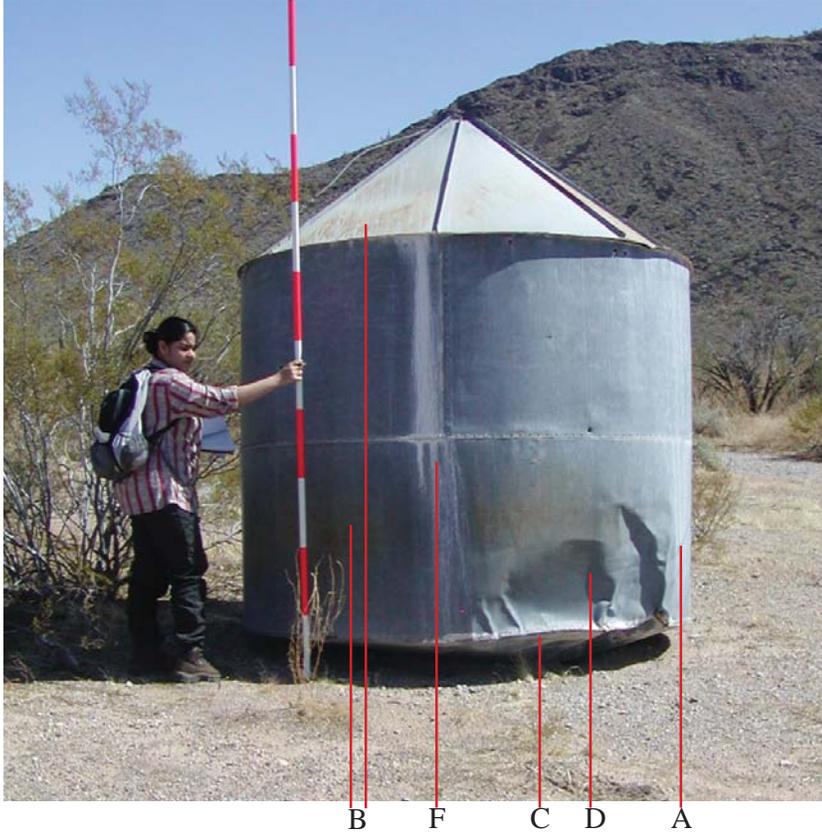
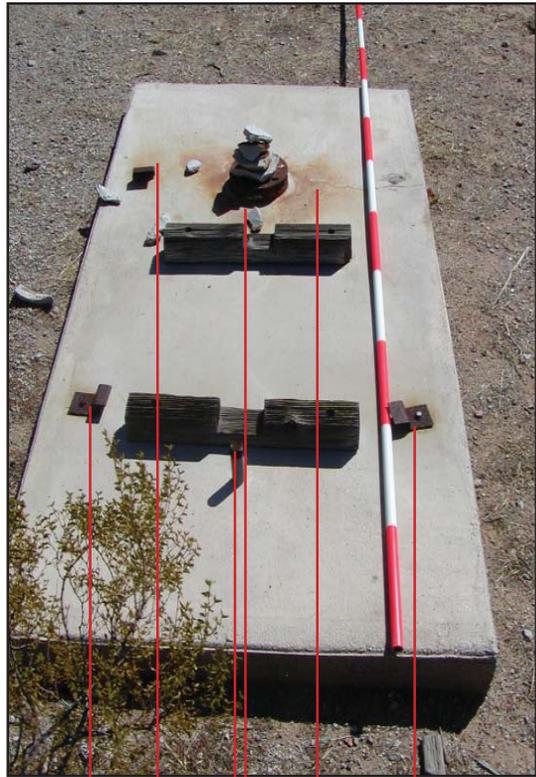


Fig. 5 - South elevation of the water tank  
(letters refer to notes in condition assessment table)



	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
A	Material displacement	Reorganize elements into a more cohesive cluster: rebuild water tank platform, orient with concrete slab	Critical
B	Corrosion of iron due to water	Chemically treat or replace elements whose integrity is damaged by corrosion	Critical
C	Convexity caused by structural damage	Reform the tank bottom	Serious
D	Concavity in metallic sheeting	Reform the tank sides	Serious
E	Vegetable overgrowth	Trim or remove vegetation that obscures visibility and orientation of elements into a cohesive grouping	Serious
F	Staining of material due to water	Allow to occur naturally	Low



B F B F B F

# WINDMILL #1

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SHPO Structure No. : HS01M

Significance : Fair

Condition : Fair

Priority : Tier 2

Integrity: High

Character Defining Features: Steel Frame, diagonal bracing, ladder, blades, vane, pump, well-cap, pad.

This structure is one among the 4 historic structures that contributes to the significance of the Bates Well Ranch, entered on the NR at the state level, under Category A, Sonoran Desert Cattle-raising and Category B, cattle-ranching property associated with Robert Louis Gray Sr. Period of Significance 1913-1942. This structure was installed in 1953 and therefore post-dates the period of significance.

## **Physical Description:**

The structure is a metal A frame windmill, with a 7' square base. It is constructed of 2 1/2" X 2 1/2" X 1/8" galvanised steel angles on corners, with 1"X1" galvanised steel angle horizontal members. It also has a 1/4" steel wire diagonal brace.

The vane has "WOODMANSE AIR\_MASTER FREEPORT ILL" stencilled on it, indicating the manufacturer of the windmill.

Beneath the windmill is the well that was dug by Rueben Daniels when the older well collapsed in the flood of 1951. The well has a concrete cap around the water pipe that measures 2'7"X3'X5". Henry Gray has signed the concrete "H.Gray 7/21/53". There was a pipe that fed the southern corral from this well.

## **Function and Use:**

Primary Historic Function: Irrigation Facility

Primary Current Use: Abandoned/Unmaintained

## **Condition Assessment :**

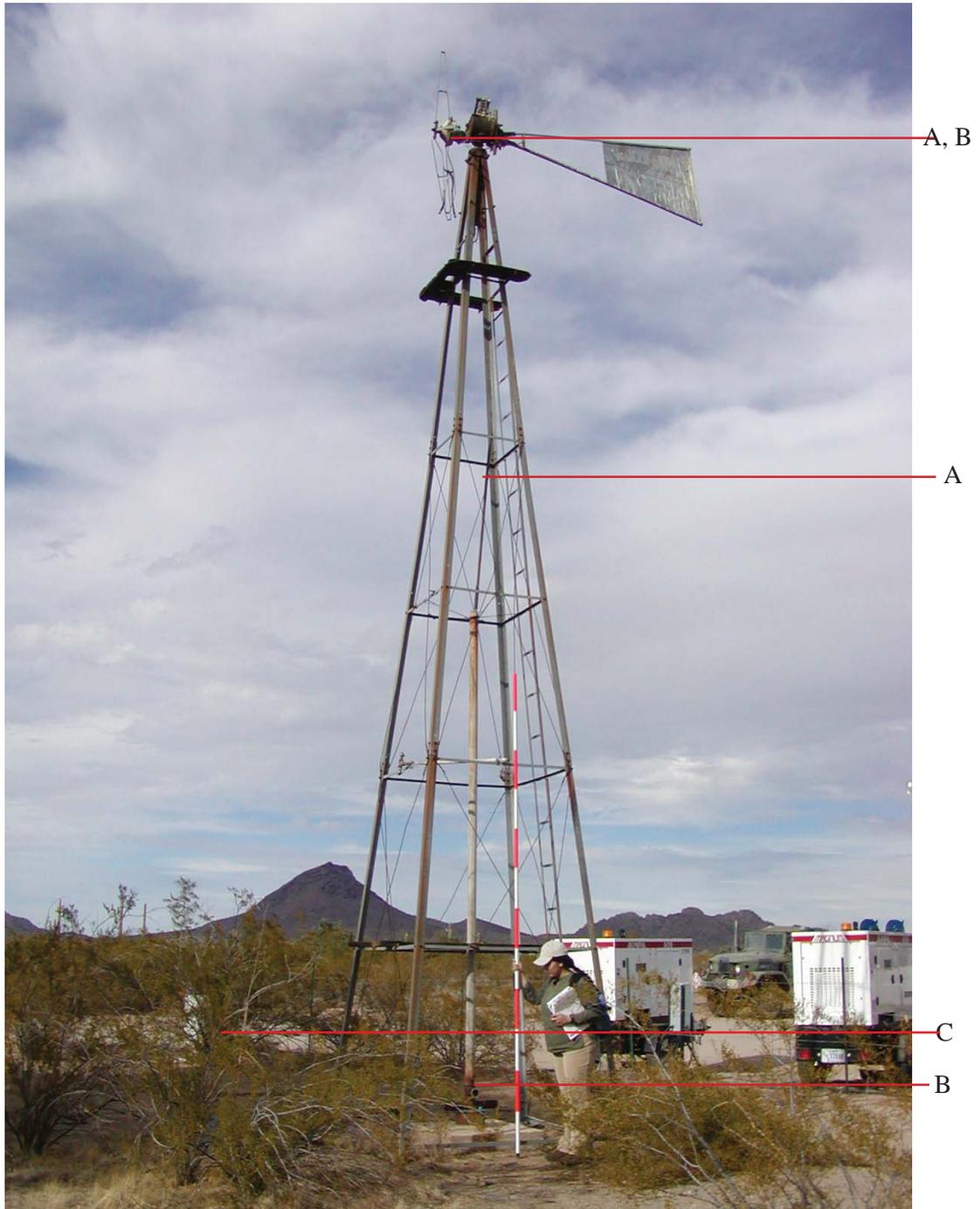
Windmill #1 is the most recent of all windmills on site, and is nearest to the Main Residence. Its frame is in good shape, with none of the members missing or badly deteriorated. There is not a significant amount of rust. The motor and rudder on the windmill are intact, but the blades have fallen to the ground, and lie near the base of the windmill. Some of these may be missing, and certainly many are damaged.

The rod that connects the windmill to the well in order to pump the water is broken, and hence the pumping mechanism is dysfunctional.

The pipes the water from the well to the southern corral are disconnected, broken and pieces of it lie around the base of the structure. The concrete pad is in good shape

## **Recommendations for stabilizing**

The windmill can be left as is.



*Fig 1. View of Windmill #1 from the south side showing existing damages and deficiencies. (letters refer to notes in condition assessment table below)*

Fig. 2 - Well pad and cap (letters refer to notes in condition assessment table below)

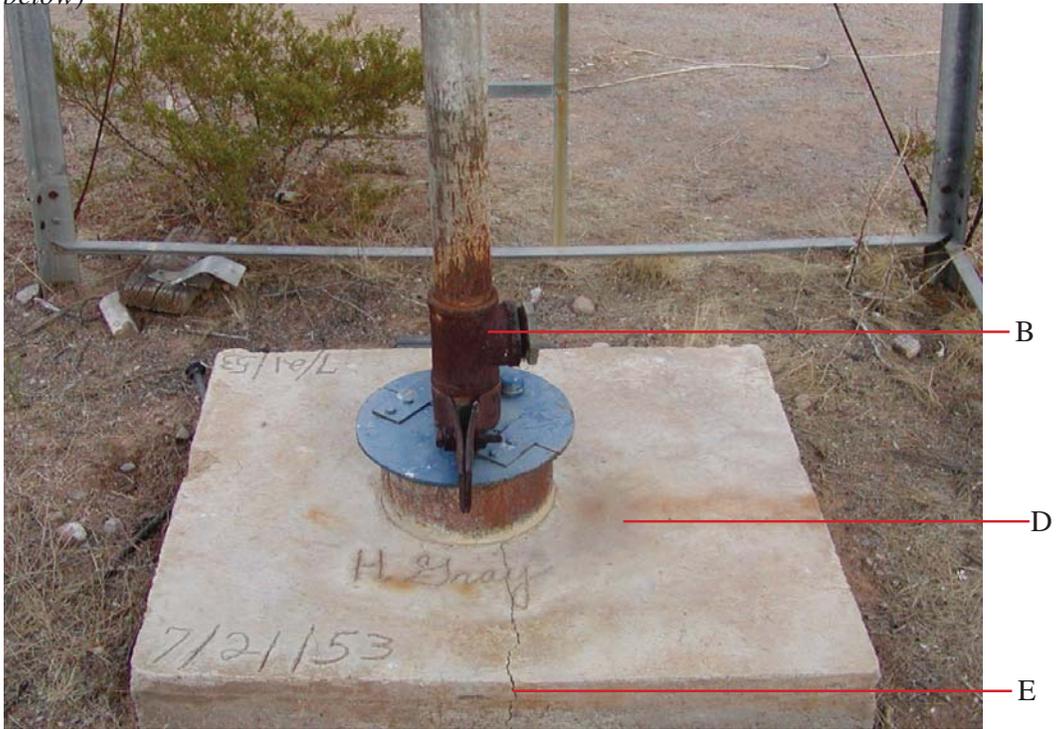


Fig. 3 - Base of Windmill #1 (letters refer to notes in condition assessment table below)





Fig 4. Bits of the pipe that fed water from Windmill #1 to the trough at Southern Corral.. (letters refer to notes in condition assessment table below)

	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
A	Detached and/or missing components. Windmill Blades missing, Connector between rotor and well pump detached. Horizontal member detached at base of windmill frame. Pipes to Southern Corral detached, missing and rusted	Repair and Reattachment of existing members if possible. Replacement of damaged/missing members.	Critical
B	Rusting of metal parts Well cap, pipe, diagonal bracing of windmill frame	Chemically treat or replace elements whose integrity has been damaged by corrosion	Critical
C	Vegetation Overgrowth around Structure	Trim or remove vegetation that obscures visibility and orientation of elements into a cohesive grouping	Serious
D	Staining of material due to water	Allow to occur naturally	Low
E	Cracking in Concrete Pad	Stitch crack or replace pad	Low

## WINDMILL #2 AND WATER TANK

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SHPO Structure No. : HS01N

Significance : High

Condition : Fair

Priority : Tier 1

Integrity: High

Character Defining Features: Steel Frame, diagonal bracing, ladder, blades, vane, pump, corrugated metal cylindrical pump casing, sheet metal tank, railroad tie construction in platform.

This structure is one among the 4 historic structures that contributes to the significance of the Bates Well Ranch, entered on the NR at the state level, under Category A, Sonoran Desert Cattle-raising and Category B, cattle-ranching property associated with Robert Louis Gray Sr. The Period of Significance is 1913-1942.

The windmill is dated to 1935 in the National Register nomination, and was constructed just west of the Eastern Corral. Adjacent to it southward is a corrugated metal water tank, raised on a platform made of railroad ties.



*Fig 1. HABS documentation photograph showing View of Windmill #2 and water tank from the east side*

**Physical Description:**

The structure is a metal A frame windmill, with a 7' square base. It is constructed of 2 1/2" X 2 1/2" X 1/8" galvanized steel angles on corners, with 1 1/4" X 1 1/4" galvanized steel angle horizontal members. It also has a 1" X 1" galvanized steel angle diagonal bracing. A ladder constructed of 1/2" thick round steel members is integrated onto the south-east corner.

The vane has "MOMSEN-DUNNEGAN-RYAN Co., EL PASE, TEXAS" stencilled on it, indicating the manufacturer of the windmill.

The pump at the base of the windmill is encased in a corrugated metal cylinder capped with a steel plate, having pipes connected to the water tank to the south.

The adjacent water tank is 6'6" in diameter and 6' high, and sits on a platform 8'6" wide and 7' tall constructed of railroad ties.

**Function and Use:**

Primary Historic Function: Irrigation Facility

Primary Current Use: Abandoned/Unmaintained

**Condition Assessment :**

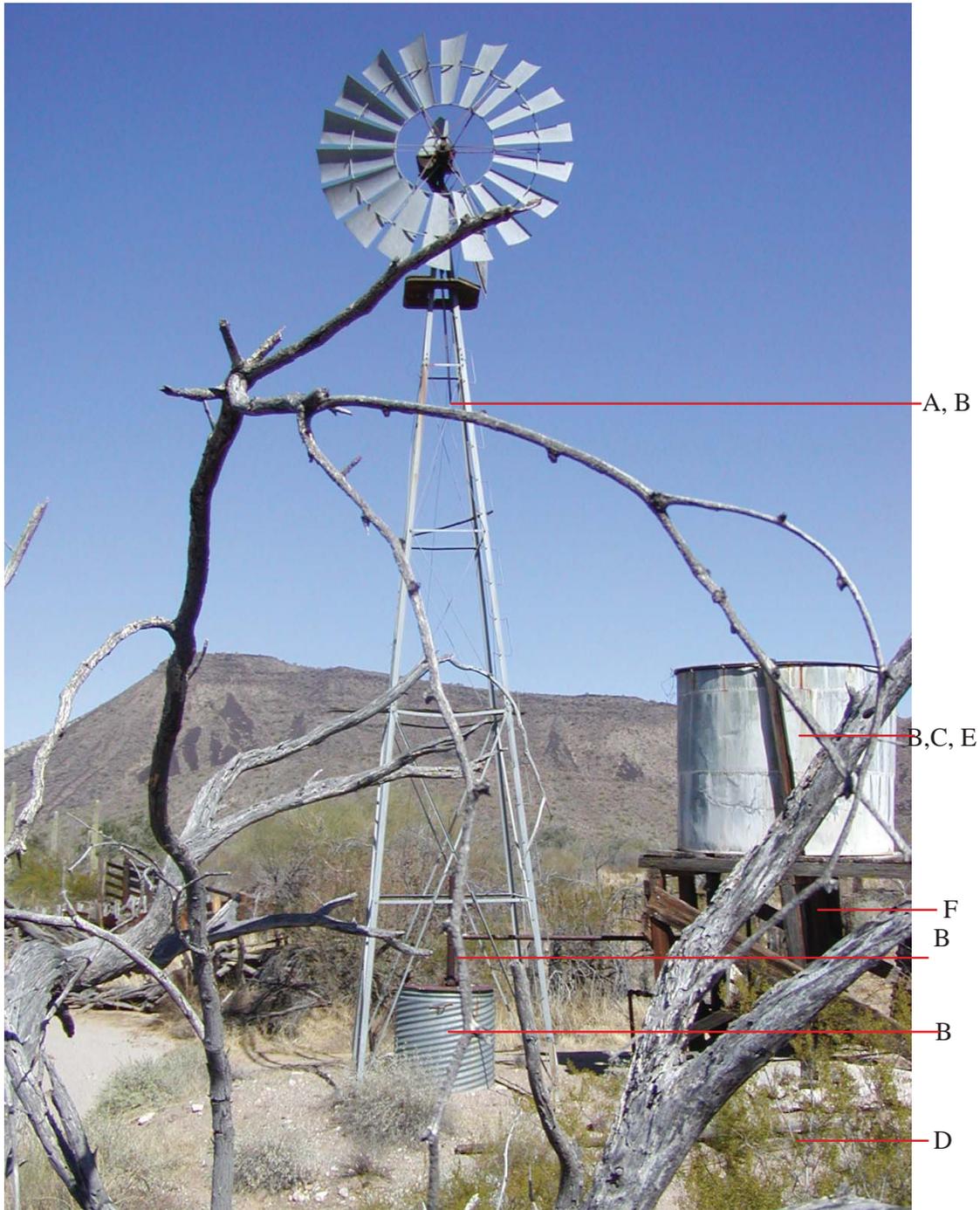
Windmill #2 is in best shape among the three windmills on site, with its blades and vane intact and the capacity for turning action when there is a breeze. It is nearest to the Eastern Corral. Its frame is in good shape, with none of the members missing or badly deteriorated. There is not a significant amount of rust. The connection between the rotor and the pump is broken and hence the windmill does not serve its function. Both the windmill and the adjacent water tank have suffered deterioration due to weathering. There is some rusting seen in the body of the water tank, as well as in the cylindrical corrugated metal casing for the pump. The platform of the water tank, constructed out of railroad ties, needs to be stabilised as some of the wooden members as well as the connections that keep them together are deteriorating. The ladder to the tank platform is missing.

**Recommendations for stabilizing :**

The windmill can be left as is.

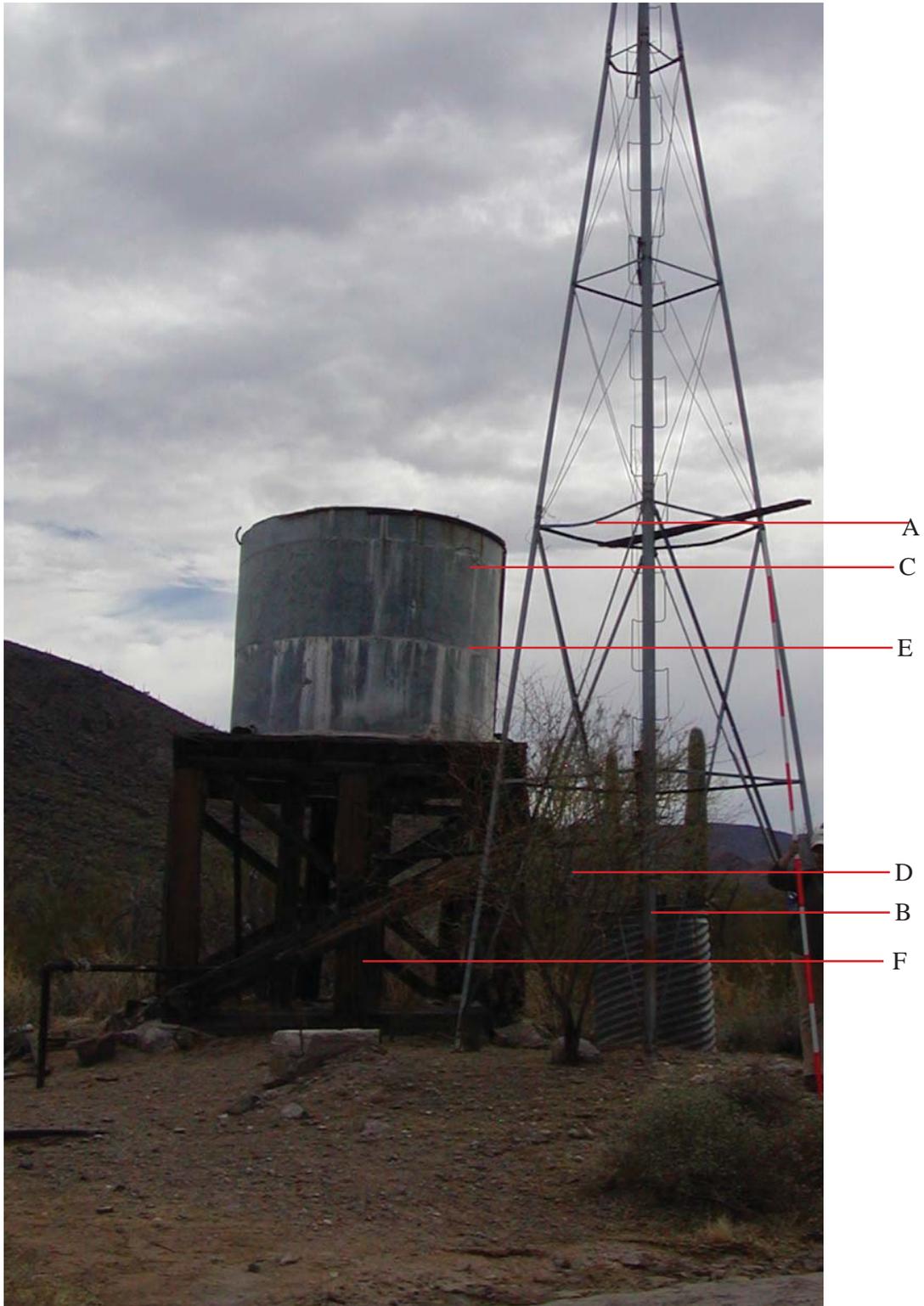


*Fig 2. View of Windmill #2 - blades and vane from the north side.*



*Fig 3. View of Windmill #2 from the west side showing existing damages and deficiencies. (letters refer to notes in condition assessment table below)*

Fig. 4 - Water Tank and Base of Windmill (letters refer to notes in condition assessment table below)



	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
A	Detached, Deformed and/or missing components. Connector between rotor and well pump detached. Horizontal members on windmill A frame bent.	Repair and Reattachment of existing members if possible. Replacement of damaged/missing members.	Critical
B	Rusting of metal parts Well cap, pipe	Chemically treat or replace elements whose integrity has been damaged by corrosion	Critical
C	Warping of Water Tank metal sheet	Reform appropriately and affix in place.	Serious
D	Vegetation Overgrowth around Structure	Trim or remove vegetation that obscures visibility and orientation of elements into a cohesive grouping	Serious
E	Staining of material due to water	Allow to occur naturally	Low
F	Rotting and Warping of wooden members in water tank platform	Chemically treat or replace members whose integrity has been compromised.	Serious

## WINDMILL #3

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SHPO Structure No. : HS010

Significance : Fair

Condition : Fair

Priority : Tier 2

Integrity: High

Character Defining Features: Steel Frame, diagonal bracing, ladder, blades, vane.

This structure is one among the 4 historic structures that contributes to the significance of the Bates Well Ranch, entered on the NR at the state level, under Category A, Sonoran Desert Cattle-raising and Category B, cattle-ranching property associated with Robert Louis Gray Sr. The Period of Significance is 1913-1942.

The windmill is dated 1930-1935 and is said to have been built by Henry Gray in the National Register nomination in the National Register nomination. It is located due north from Windmill#2, and is isolated from all other buildings/structures that constitute the ranch complex.



*Fig 1. Photograph of Windmill#3 taken from the south-west direction.*

**Physical Description:**

The structure is a metal A frame windmill, with a 7' square base. It is constructed of 2 1/2" X 2 1/2" X 1/8" galvanized steel angles on corners, with 1 1/4" X 1 1/4" galvanized steel angle horizontal members. It also has a 1" X 1" galvanized steel angle diagonal bracing. A ladder constructed of 1/2" thick round steel members is integrated onto the south-west corner. It is almost identical to the Windmill#2 structure.

The vane has "AERMOTOR CHICAGO" stencilled on it, indicating the manufacturer of the windmill.

**Function and Use:**

Primary Historic Function: Irrigation Facility

Primary Current Use: Abandoned/Unmaintained

**Condition Assessment :**

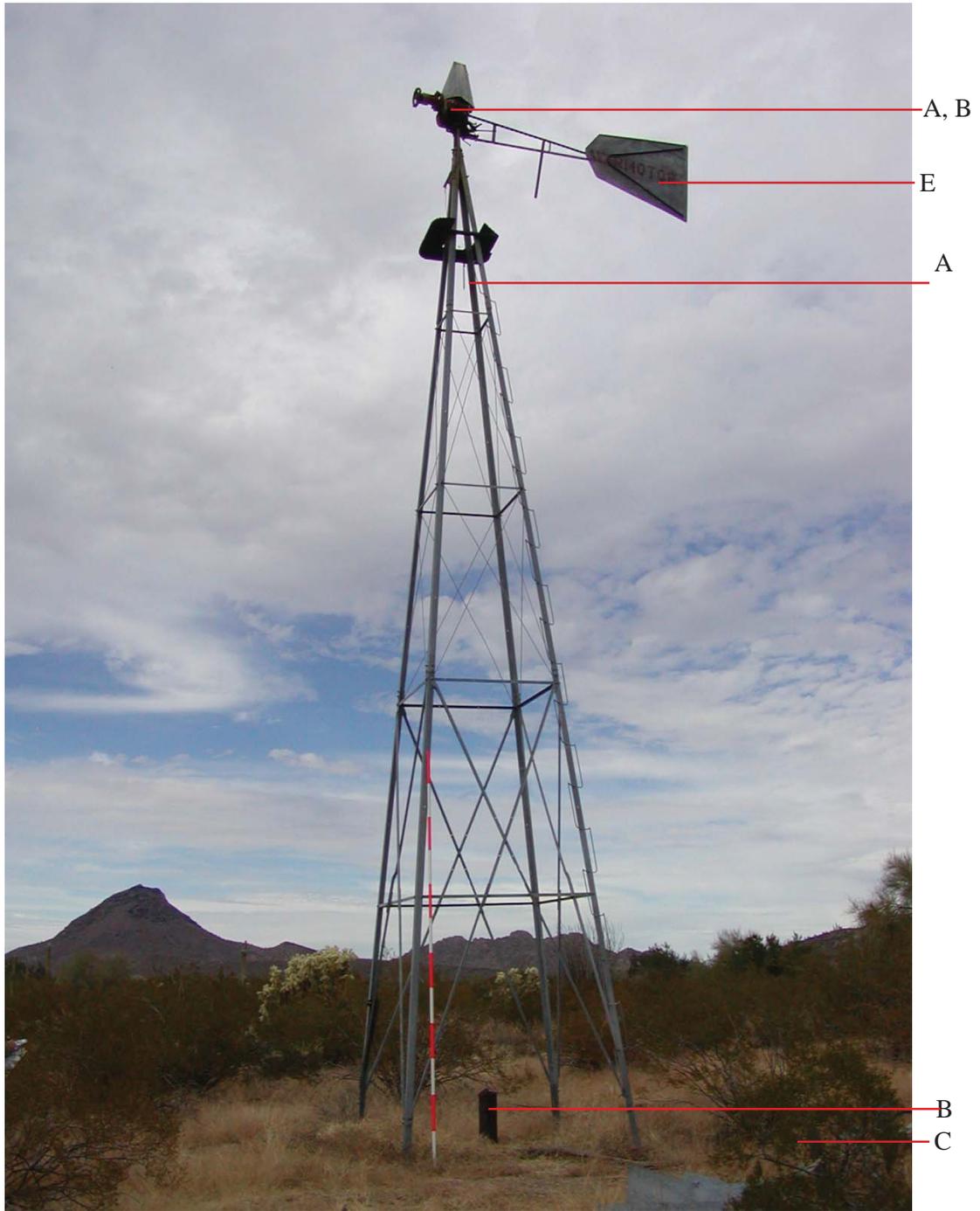
The Windmill#3 is the most isolated among the three windmills and is the north-most structure in the Bates Well Ranch complex. The blades have fallen to the ground, and lie near the base of the windmill. They are in somewhat less of a damaged state than those of Windmill#1. The connection between the rotor and the pump is broken. The windmill has suffered deterioration due to weathering.

**Recommendations for stabilizing :**

The windmill can be left as is.



*Fig 2. View of vane - windmill#3*



*Fig 3. View of Windmill #3 from the south-west side showing existing damages and deficiencies. (letters refer to notes in condition assessment table below)*

*Fig. 4 - Blades from Windmill#3 lie on the ground near its base. (letters indicate damages and deficiencies based on table that follows*



*Fig. 5 - Base of Windmill #3 (letters indicate damages and deficiencies based on table that follows*

	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
A	Detached, Deformed and/or missing components. Blades detached, lying on ground nearby. Connector between rotor and well pump detached.	Repair and Reattachment of existing members if possible. Replacement of damaged/missing members.	Critical
B	Rusting of metal parts Well Cap, windmill vane	Chemically treat or replace elements whose integrity has been damaged by corrosion	Critical
C	Vegetation Overgrowth around Structure	Trim or remove vegetation that obscures visibility and orientation of elements into a cohesive grouping	Serious
D	Staining of material due to water	Allow to occur naturally	Low

## EAST CORRAL

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SHPO No. : HS01K

Significance : High

Condition : Fair

Priority : Critical

### Character Defining Features:

The East Corral is one of the contributing structures to the Bates Well Ranch, entered on the National Register of Historic Places, under Criterion A - 'Sonoran Desert Cattle Raising' and B - 'Association with Robert L. Gray Sr.'. The period of significance has been identified as 1913-1942. The East Corral was probably constructed within this period and formed a necessary structure to support the ranching activities at Bates Well.

### Physical Description:

Located 600' from the main residence, the structure is a conglomeration of five pens oriented along a central spine that runs generally north/south. Within the five pens construction and materiality changes frequently, rendering each of the pens a unique entity. Pen #1, as labeled in Figure 2, is a loading pen constructed mainly of horizontally stacked mesquite logs held in their relative position by regularly spaced vertical mesquite polls, portions of which are in advance stages of collapse. As the loading pen it contains a loading ramp differentiated by its composite construction of dimensional lumber, of varying sizes, and railroad ties. The loading ramp begins at the eastern corner of Pen #1, extends the length of its northern fence, and ultimately terminates in two cattle chutes, also of dimensional lumber and railroad ties.



*Fig. 1 - View of the north most wall of East Corral*

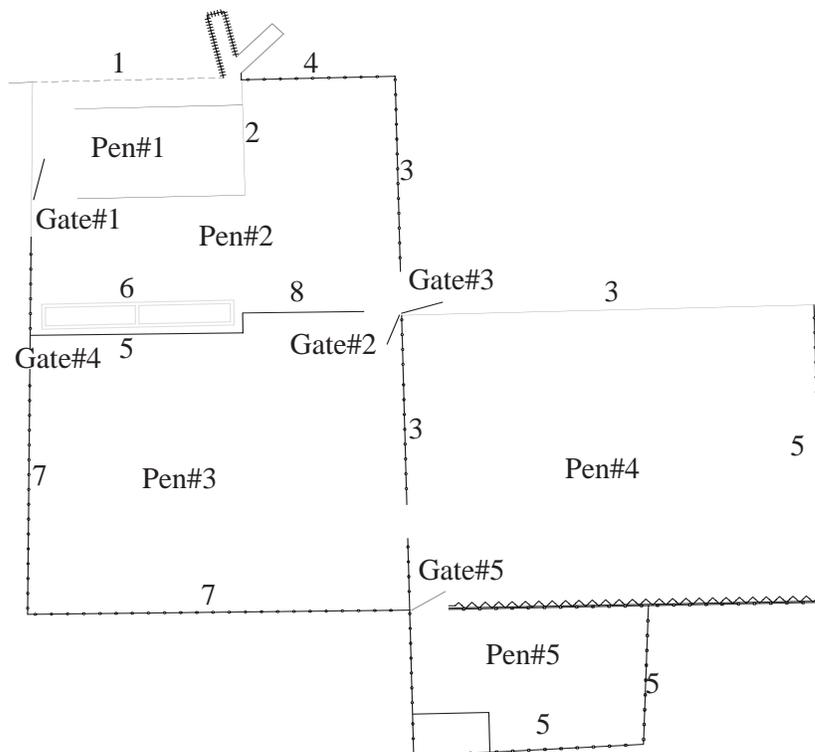
Pen #2, again see Figure 2, conjoins Pen #1 and partially shares its construction of horizontally stacked mesquite logs and vertical mesquite posts. However, the southern fence is composed of vertically oriented railroad ties, bound together by barber wire and a horizontal metal pipe for lateral stability. Pen #2 also contains a partitioned concrete watering trough, with walls approximately 10" thick with the remains of a fence of barber wire and dimensional lumber running through the middle.

Pen #3 is a larger holding pen of more widely spaced railroad ties bound with barbed wire and laterally supported by both metal piping and dimensional lumber. Pen #4 likewise uses a vertical orientation of material but with mesquite posts of varying sizes and shapes. The material density also varies greatly in the fourth pen, sometimes being tightly clustered and at others spaced regularly, all the while strung together with barber wire.

Pen #5 is again of mixed material, vertical mesquite posts and vertical railroad ties. It, however, is the only pen that gives evidence of a shade structure. The ramada-like overhang is located in the southwest corner of the pen and again show signs of mixed materiality. Supported by railroad ties, a combination of metal piping, broken pieces of dimensional lumber, mesquite branches, and corrugated metal sheets are layered together to form a small shelter.

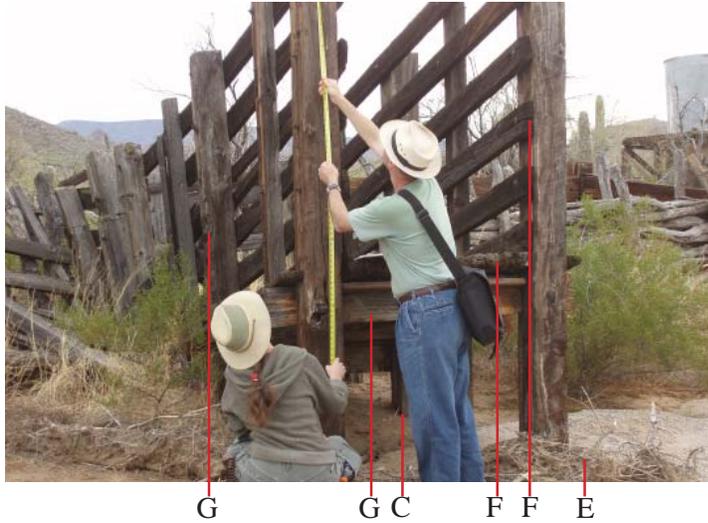
**Condition Assessment:**

At present, the condition of the structure has been assessed as fair relative to the condition of the other ranch structures on site. This designation, however, does not deny the many structural problems existing in the corral. A number of fences have collapsed completely. The smaller of the cattle chutes has collapsed upon itself and the other is being undermined by water. In all cases the wood elements have suffered from extensive weathering, which has contributed to structural collapse.

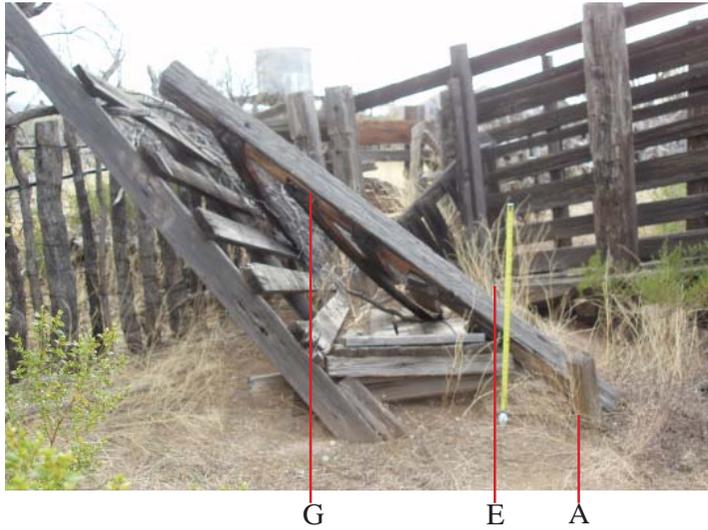


*Fig. 2 - Computer generated plan view of existing East Corral (numbers correspond to material and construction shown in following photographs)*

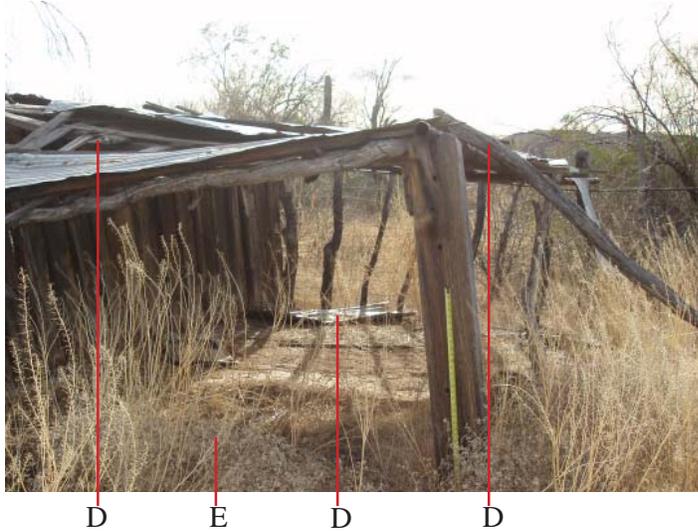
*Fig. 3 - North elevation of the larger cattle chute  
(letters refer to notes in condition assessment table)*



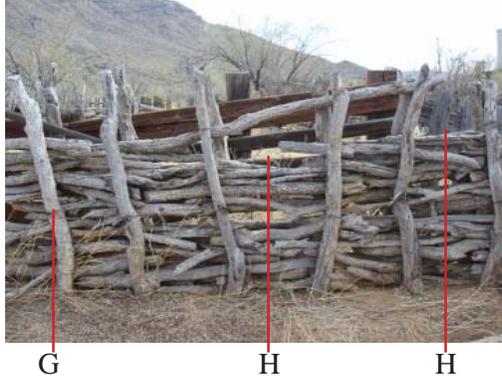
*Fig. 4 - Northeast elevation of the smaller chute  
(letters refer to notes in condition assessment table)*



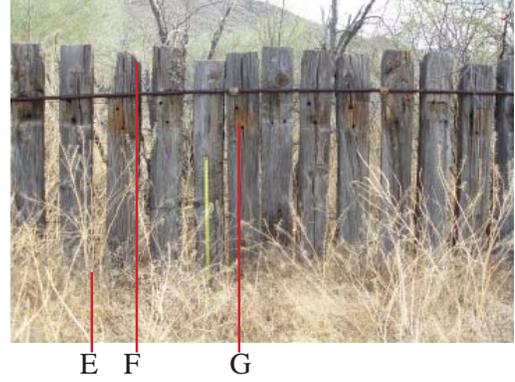
*Fig. 5 - East elevation of the shade structure  
(letters refer to notes in condition assessment table)*



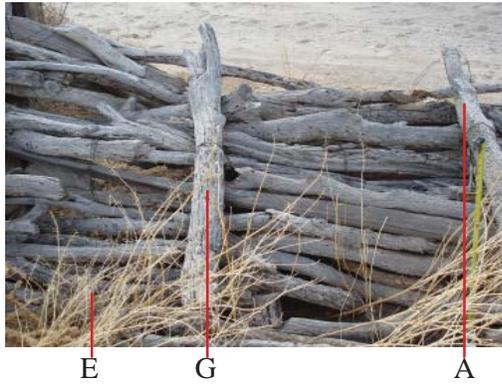
1: Horizontally stacked mesquite logs & regularly spaced vertical mesquite posts



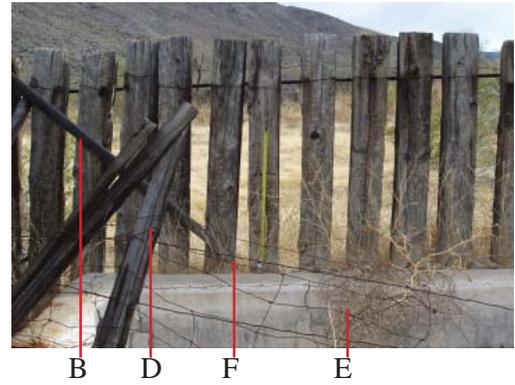
5: Vertical railroad ties with metal piping & barbed wire



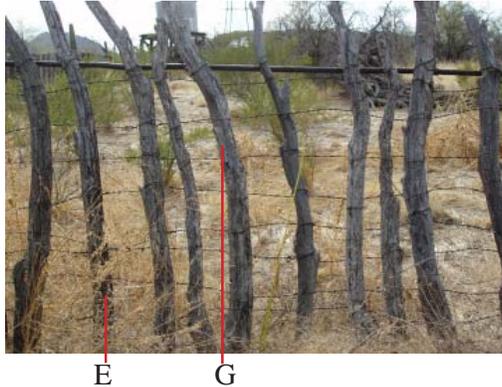
2: Horizontally stacked mesquite logs & regularly spaced vertical mesquite posts, collapsed



6: Vertically oriented dimensional lumber and barbed wire



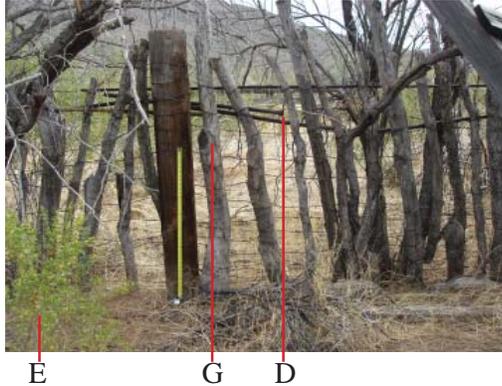
3: Regularly spaced vertical mesquite posts with barbed wire & metal piping



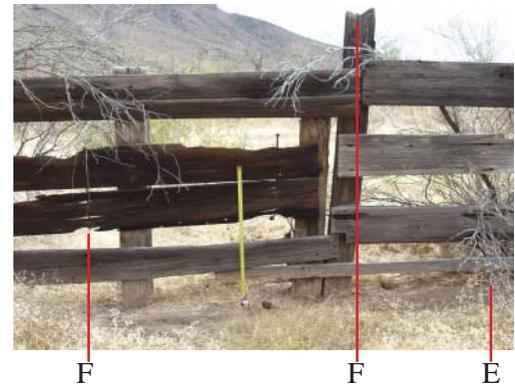
7: Vertical railroad ties with metal piping, barbed wire, & dimensional lumber



4: Densely spaced vertical mesquite posts & railroad ties with barbed wire & metal piping



8: Vertical railroad ties & dimensional lumber



	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
A	Complete structural collapse	Reconstruct collapsed portions using original material where possible; if original material is missing similar elements should be used in the reconstruction	Critical
B	Partial structural collapse	Stabilize the structure where possible, any collapsed portions should be reassembled	Critical
C	Structural undermining attributed to water	Correction of the water source; replacement of earth where water has caused undercutting	Critical
D	Material displacement	Reinsertion of material where ever possible; if material is cracked or severely damaged replacement with a similar element is suggested	Serious
E	Vegetable overgrowth	Trim or remove vegetation within the corral	Serious
F	Cracking of wood from lack of moisture	Replace only when threatens the stability of the member	Low
G	Staining of wood due to water	Allow to occur naturally	Low
H	Missing material due to vandalism	Replace material with similar element	Serious
I	Addition of contemporary elements	Where possible remove achronistic material	Low

Fig. 6 - Gate #1  
(see Fig. 2 for location)

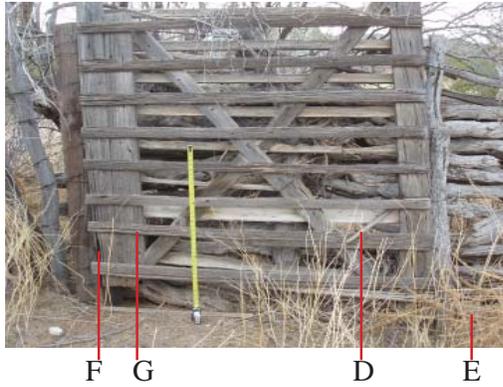


Fig. 10 - Gate #5  
(see Fig. 2 for location)

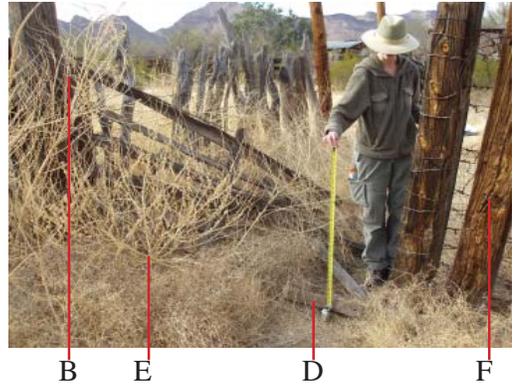


Fig. 7 - Gate #2  
(see Fig. 2 for location)

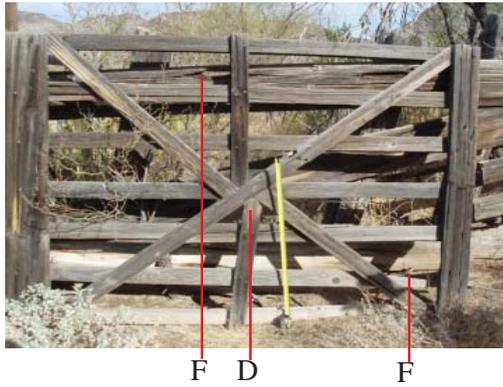


Fig. 8 - Gate #3  
(see Fig. 2 for location)

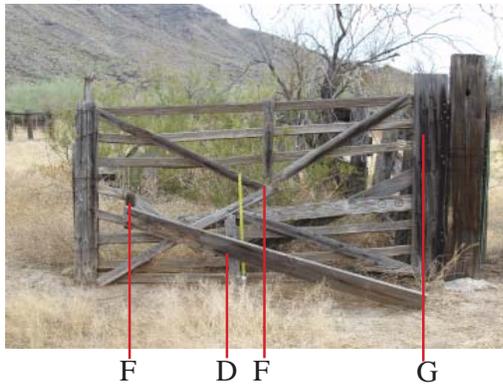
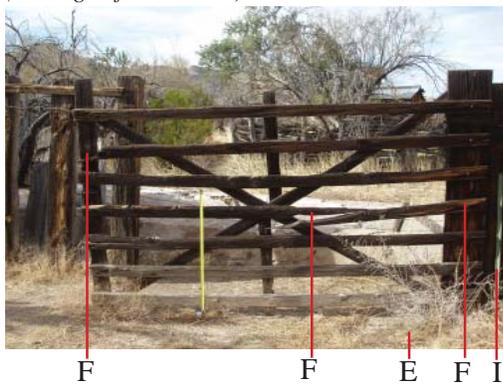


Fig. 9 - Gate #4  
(see Fig. 2 for location)



## SOUTH CORRAL

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SHPO No. : HS01L  
Significance : Middling  
Condition : Fair  
Priority : Lower

### Character Defining Features:

The South Corral is one of the contributing structures to the Bates Well Ranch, entered on the National Register of Historic Places, under Criterion A - 'Sonoran Desert Cattle Raising' and B - 'Association with Robert L.Gray Sr.'. The period of significance has been identified as 1913-1942. The South Corral was probably constructed within this period and formed a necessary structure to support the ranching activities at Bates Well.

Approximately 1050' from the main residence, the structure is a roughly 'L' shaped configuration of four conjoined pens. The four pens are constructed predominately of salvaged railroad ties and mesquite logs, though various other materials make their appearance throughout the composition. As in case of the East Corral, each of the pens in the South Corral is unique. Pen #1, as labeled in Figure 2, is the smallest of the southern pens. Constructed of railroad ties, vertically oriented and bound together with barbed wire, it served as the loading pen for the South Corral. The pen is slightly irregular in shape having a northern fence that angles gently toward a cattle chute in the northeast corner. The cattle chute is once again constructed of dimensional lumber and extends at an angle toward to the adjacent trail.



*Fig. 1 - View of the cattle chute & northmost fence of the South Corral*

Pen #2, again see Figure 2, extends south from Pen #1 and partially shares its construction of vertical railroad ties. However, the orientation of the railroad ties changes part way along the eastern fence to a horizontally constructed split rail fence. Pen #2 also contains a shade structure of the now familiar mix of materials ranging from metal piping, used as horizontal cross beams, to scraps of broken lumber stacked on top to provide a semblance of shade.

Pen #3 is a larger holding pen of mostly horizontally stacked mesquite logs, supported at irregular intervals by vertical mesquite posts, extending roughly eastward from Pen #2.

Pen #4 again reverts to a formation of railroad ties, a split rail fence being constructed of the weighty members in an approximately rectangular pen. It is in this the fourth pen that three-part watering trough resides. Built partially into the ground of 10" thick concrete, the watering trough is fed through a series of pipes from the windmill/well closest to the main residence. The South Corral too has a pair of small ramp-like structures whose purpose is not known at this time. Constructed of lumber and wire mesh and infilled with river rocks, they stand adjacent to one another, one in and one out of the trough. Also in the fourth pen are the distinctive trigger gates of the southwest ranching typology. A pair of lumber constructed gates placed in a 'V' formation interiorly, the trigger gates allowed cattle to enter the corral but their pointed ends and narrow outlet prevented the cattle from leaving again.

At present, the condition of the structure has been assessed as fair relative to the condition of the other ranch structures on site. There are a growing number of structural failures existing at present in the fences. Both mesquite and railroad tie fence construction evidence varying degrees of degradation. In some cases the eventual surrender to gravity has been arrested by adjacent vegetation but in all cases wood elements have suffered from extensive weathering, which has contributed to structural collapse.

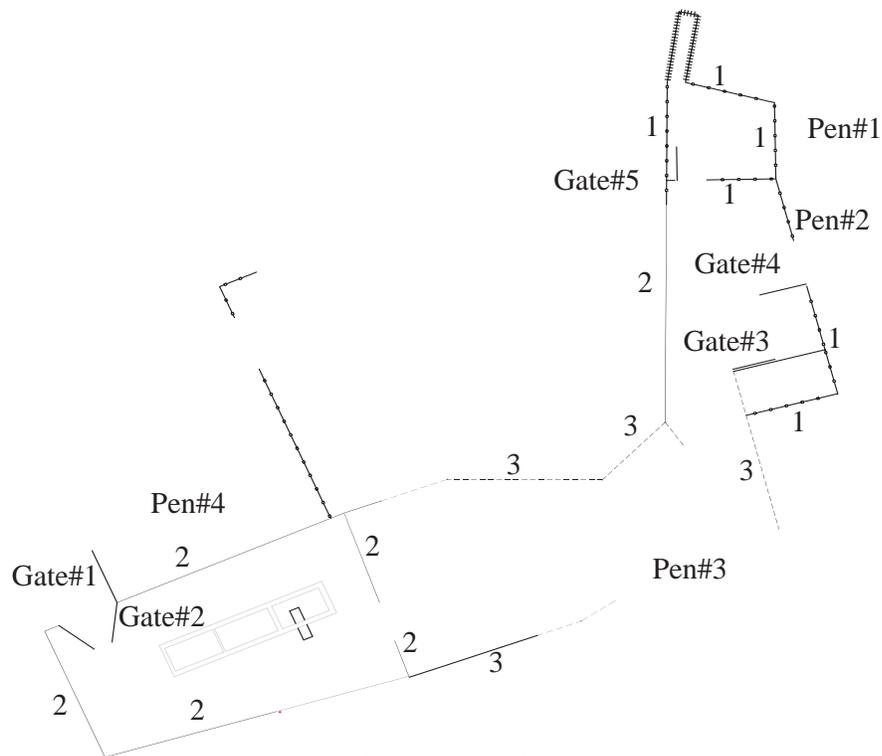


Fig. 2 - Computer generated plan view of existing South Corral (numbers correspond to material and construction shown in following photographs)

Fig. 3 - East elevation of the cattle chute  
 (letters refer to notes in condition assessment table)

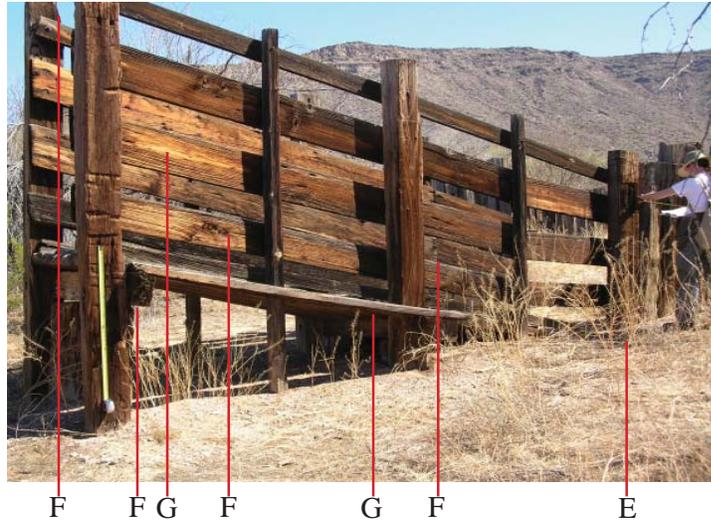


Fig. 4 - Southeast elevation of the shade structure  
 (letters refer to notes in condition assessment table)

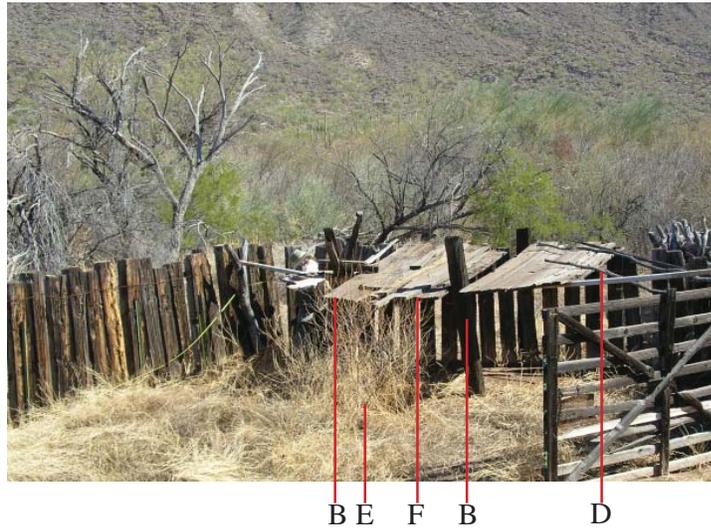
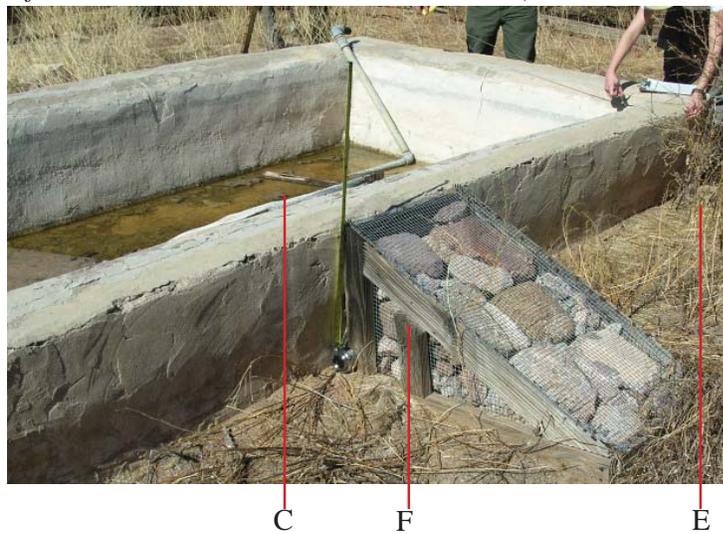
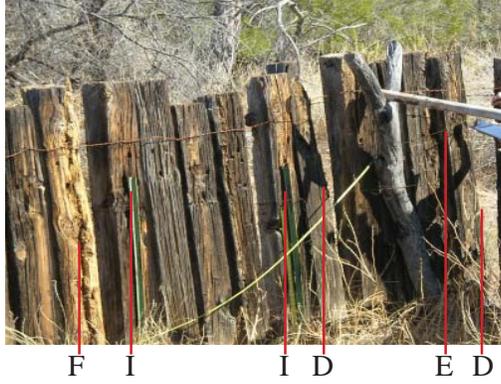


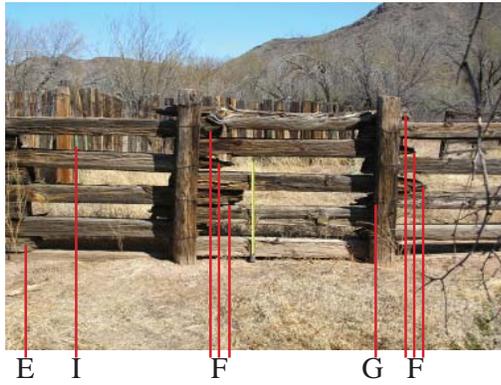
Fig. 5 - Southwest view of the concrete trough and ramp-like configurations  
 (letters refer to notes in condition assessment table)



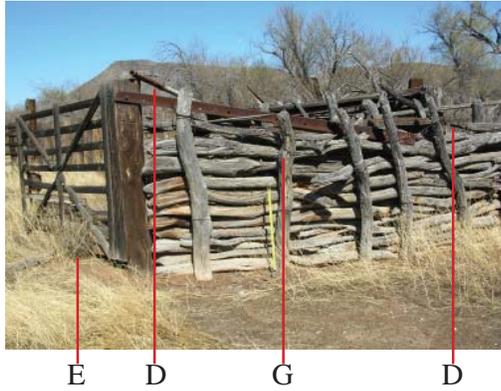
1: Vertically oriented railroad ties bound with barbed wire



2: Horizontally stacked split rail fencing utilizing railroad ties & barbed wire for stability



3: Horizontally stacked mesquite logs with irregularly spaced vertical mesquite supports



3: Collapsed portion of mesquite stacked fence



	<b>Deficiencies</b>	<b>Recommended Treatments</b>	<b>Priority</b>
A	Complete structural collapse	Reconstruct collapsed portions using original material where possible; if original material is missing similar elements should be used in the reconstruction	Critical
B	Partial structural collapse	Stabilize the structure where possible, any collapsed portions should be reassembled	Critical
C	Pooling of stagnate water	Reinstate well water circulation by reactivating windmill/well and repairing metal pipeline from well to trough	Low
D	Material displacement	Reinsertion of material where ever possible; if material is cracked or severly damaged replacement with a similar element is suggested	Serious
E	Vegetable overgrowth	Trim or remove vegetation within the corral	Serious
F	Cracking of wood due to exposure	Replace only when threatens the stability of the member	Low
G	Staining of wood due to water	Allow to occur naturally	Low
H	Missing material	Replace material with similar element	Serious
I	Addition of contemporary elements	Where possible remove achronistic material	Low

Fig. 6 - Gate #1  
(see Fig. 2 for location)

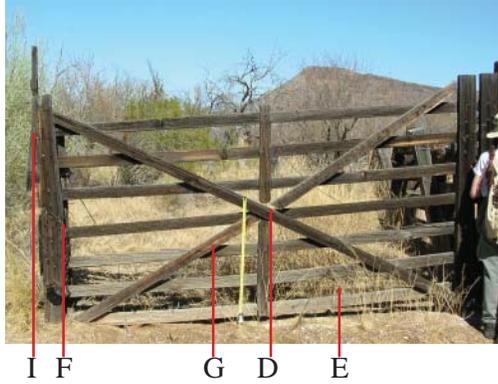


Fig. 10 - Gate #5  
(see Fig. 2 for location)

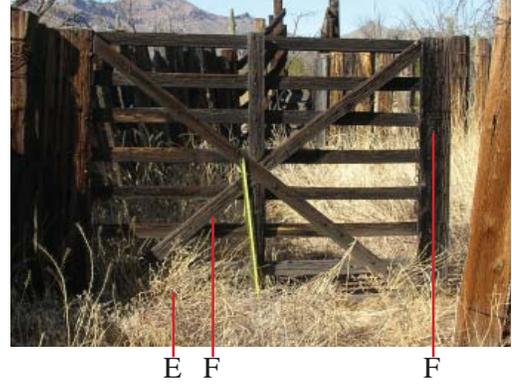


Fig. 7 - Gate #2 : Trigger gate  
(see Fig. 2 from location)

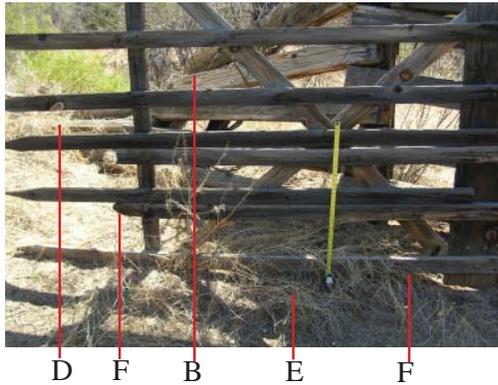


Fig. 8 - Gate #3  
(see Fig. 2 for location)

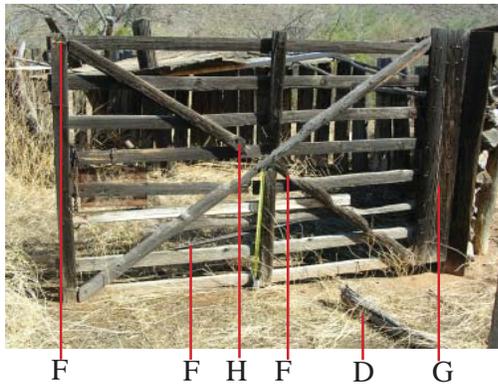
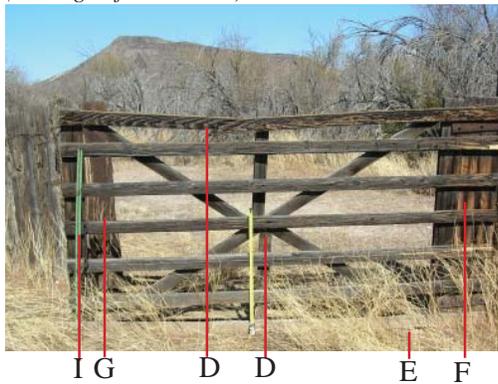


Fig. 9 - Gate #4  
(see Fig. 2 for location)





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part two:  
TREATMENT AND USE

## **REQUIREMENTS & ALTERNATIVES FOR TREATMENT**

Currently, the National Register Nomination for Bates Well focuses its attention almost exclusively on the area's involvement with frontier cattle raising. This is understandable based on the highly visible structural artifacts remaining from this period of use as well as the immediate volume of personal information regarding the Gray Family on-site. However, as we have seen, the cultural landscape of the area inhabited by Bates Well Ranch is far richer.

Alluded to, but not well enumerated in the National Register Nomination, are other periods of significance that through active interpretation can become important contributors to the cultural understanding of Bates Well. Among those mentioned is the theme of mining, which, because of the well, had an imminent tie to what would later become the Bates Well Ranch. Pre-dating this though are multiple levels of Native American use and inhabitation. The National Register Nomination shortly mentions an on-site O'odham Village in the 1800's but further archeological indicators give evidence of site involvement from the Archaic Period forward including such transient phenomena as the Shell Trail.

These multiple layers of cultural pertinence join together in expressing one over arching thematic point: the overwhelming importance of water. This in turn also emphasizes the significance of the surrounding landscape, as its geography and ecology relate to the capture of water.

It is therefore recommended that the National Register Nomination be updated to include these related themes of significance, as far as evidentiary support will allow, shifting the focus from a solely ranching point of view to an emphasis upon that which has made the site so inviting for so many forms of inhabitation.

### **ULTIMATE USE SCENARIOS**

#### **Primary Theme of Significance:**

**Water** and **Human Activity** (- tie to human survival)

#### **Secondary Themes & Character-Defining Features:**

Water – wells, windmills, natural landscape features

Transportation Systems (historic and contemporary) – roads, trails (internal and external to ranch property)

Mining – arrastra, salvage materials

Ranching – ranch houses, bunkhouses, tack room, corrals, water troughs, etc.

#### **Ultimate Use Scenarios**

(to be completed cumulatively in sequential order)

##### **1. No Action**

-Amend NR nomination to include other themes of significance.

-Site access & Border Patrol presence a major deterrent to visitation, but would still be allowed with appropriate notification of liability.

-Buildings and site features would be allowed to deteriorate.

-Border Patrol presence is deterrent to unauthorized use of buildings and decline of site integrity; perhaps move sub-station away from immediate adjacency.

-Interpretation efforts concentrated off-site at Visitors Center.

## **2. Minimal Site Interpretation**

- No building treatments
- On-site signage for overall ranch context and at each structure.
- Venue for “event” visitation (horseback & jeep tours, storytelling, etc.)

## **3. Provide Treatment for Tier I Structures (Main House, East Corral, Windmill #2, Arrastra )**

- Defined as representing:
  - core ranch and landscape physical context,
  - integrity of existing, verifiable evidence,
  - size, variety of materials and features
  - association with multiple themes,
  - multiple functions/use types
  - condition

## **4. Provide Treatment for Tier II Structures (Windmill #1, Small House, Blacksmith Shop, Tack House, Bunkhouse, Hay Barn, Southern Corral)**

- Representing a larger sphere of physical complex and landscape around core Tier I structures.

## **5. Establish Adaptive Use for Ranch Complex**

- Create northern satellite visitors way-station focused on themes
  - equestrian trails
  - overnight use of bunkhouse
  - “chuckwagon” recreational experience
  - would require removal of Border Patrol
  - night-sky attraction
  - Native American story-telling
  - may require new structures, infrastructure (restrooms, shade ramadas, etc.)



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