



WATER-RIGHT DOCKET

Joshua Tree National Park

Docket No: 1

PINTO WELL #2

Preliminary Docket Information

08-16-1973: water right/source docket information

WATER RESOURCES/WATER RIGHTS DATE: August 16, 1973

WATER RIGHT/SOURCE DOCKET INFORMATION

REGION Western Region AREA Joshua Tree National Monument

SITE Pinto Well #2

STATE California COUNTY Riverside County DOCKET NO WR #1

LOCATION NW 1/4, NW 1/4, SE 1/4, Sec. 4, T3S, R15E, SBB&M

REGIONAL BASIN _____ LOCAL BASIN Pinto Basin

ACQUIRED BY Drilling

APPLICATION _____ PERMIT _____ CERTIFICATE _____

ACTION DUE _____ PRIORITY _____ RESERVATION August 10, 1936

QUANTITY _____ USE _____

STATUS Active SOURCE Well

REMARKS The USGS well-numbering system identifies this well as #3S/15E 4T

hydrologic unit #18100100

NARRATIVE: The Kaiser Steel Corporation drilled a well on Joshua Tree National Monument in November, 1954. It was 575' deep, and was named Pinto Well #2. However, in digging the well, Kaiser trespassed on National Park Service property; the well was drilled some 1000' inside the Monument. To settle the government's claims against it for this trespass, Kaiser paid a sum of money to the government, agreed to construct a fence around the well and repair the scenery around the site, and released to the government any interests it might claim over the well. This release was executed on October 23, 1956. For several years thereafter, Kaiser sought to obtain special permission from the Park Service to use this water in a nearby mining operation, and in a city which was to be built near the mine. It was decided in 1968 that Kaiser should not be given use of the water, except on a temporary, emergency basis, until it could show that it had already fully developed other water sources available to it. Such a showing was not made.

Compiled by Wm. N. Murray

Approved by W. Werrell

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Joshua Tree National Monument
Water Right #1
Outline of Assembly - Correspondence

1. Letter to Superintendent from Attorneys, April 14, 1955
2. Memorandum to Regional Director from Chief Water Resources, June 30, 1955
3. Memorandum to Regional Director from Chief Water Resources, June 5, 1956
4. Letter to Assistant Attorney General from Ezekiel G. Stoddard,
November 9, 1956
5. Letter to Solicitor from Assistant Attorney General, November 20, 1956
6. Memorandum to Director from Assistant Solicitor, November 28, 1956
7. Memorandum to Regional Director from Chief Water Resources, December 6, 1956
8. Letter to Kaiser Steel Corporation from Director, March 13, 1958
9. Letter to Director from Kaiser Steel, May 25, 1959
10. Letter to Kaiser Steel Corporation from Acting Director, June 5, 1959
11. Memorandum to Regional Director from Acting Director, June 8, 1959
12. Memorandum to Regional Director from Chief Water Resources, May 25, 1961
13. Memorandum to Chief Division of Land and Water Rights from Special
Projects Officer, June 1, 1967

R E L E A S E

COPY

KAISER STEEL CORPORATION, a Nevada corporation, hereby releases to the UNITED STATES OF AMERICA any and all interest in and to what is commonly known as Pinto Well No. 2, located in Joshua Tree National Monument and situated in the State of California, within the South Half of the Northeast Quarter of Section 4, Township 3 South, Range 15 East, San Bernardino Base and Meridian. Said release is without prejudice to the right of Kaiser Steel Corporation to apply to the Department of the Interior of the United States of America for a permit to use said well.

DATED this 23rd day of October, 1956.

KAISER STEEL CORPORATION

By /s/ R. H. Olsen

R. H. Olsen
Assistant Secretary

L54-OLW

Memorandum

JUN 1 1967

To: Chief, Division of Land and Water Rights

From: Special Projects Officer

Subject: Kaiser special-use permit, Joshua Tree

Thursday, May 25, Ed Reed and I met Robert Maier, Assistant Manager, Kaiser Industries, at their suite at the Sheraton-Park Hotel during the Water for Peace Conference. As you will recall, Kaiser is interested in obtaining a special-use permit for the Pinto No. 2 well. This well was drilled for them on an improperly located site on park lands rather than on the Metropolitan Water District inholding. Kaiser has some form of license from the Metropolitan Water District. The National Park Service denied Kaiser the use of the well which was subsequently capped, and Kaiser made, I believe, some minor payments for damages. Kaiser's other well on Metropolitan Water District land is a good high yield producer. Part of the picture is fuzzed-up because some past discussions involving the Kaiser donation at Chalmette may have set the basis for this special-use permit request. Mr. Maier says the well is primarily intended as a standby to handle peak requirements at some time in the future. Kaiser does not need the water now.

Mr. Maier was told:

1. The Pinto Basin is hydrogeologically a closed basin with no inflow or outflow. It depends entirely on rainfall. Withdrawals are from wells which are taking out more water than can be restored by rainfall. In effect, the water was being mined.
 2. The Park Service could consider a longer special-use permit than the two-year permit once offered, but even the maximum period of 20 years was still revokable at the discretion of the Secretary, and that Administratively we preferred annual review of permits at the time of payment of the fee.
 3. If a permit was to be issued, one major requirement would be a report from the U. S. Geological Survey on the current situation in this basin.
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We would be guided by their recommendation on basin management, that is number of wells (Kaiser will propose to drill others), spacing, withdrawal rates and monitoring. This may require as much as six months before we could issue the permit for any but very short periods. Further, we would expect some cost-sharing arrangement with Kaiser for the U. S. Geological Survey investigation.

4. There would be controls on new construction and access to the well sites, and a fee would be made for the water withdrawn. The fee would be affected by the type of use being made of the water.

5. The park has future development needs which will, of course, take precedence over Kaiser's needs. Granted a permit now, it would still be conditioned on its effect on the park's future.

6. The decision will likely be made at Park and Regional Offices with recommendations and review by the Washington Office. The park is, in any case, the issuer of the permit.

7. We would alert the San Francisco Planning and Service Center, Office of Land and Water Rights, to make arrangements with U. S. Geological Survey to consider the investigation. We would take no stronger action until we received Kaiser's formal request and requirements.

(Sgd) Manuel Morris

Manuel Morris

cc:
Regional Director, Western
Supt., Joshua Tree
SSC-OLW, Attn. Mr. Fields
OLNW, Mr. Reed
OLW, Mr. Morris

MMorris:eh:6/1/67

7McDowell. ORM

TRIP REPORT - LWSSC

By: A. W. Gray

Date of Travel: July 12, 1968

Subject: Joshua Tree

A meeting was held in Los Angeles, California, on July 12, 1968, with the following in attendance:

W. J. Costello, Field Solicitor
William R. Supernaugh, Superintendent, Joshua Tree National Monument
Arthur J. Hayes, Chief Ranger, Joshua Tree National Monument
Willis P. Kriz, Land Liaison Officer, Western Region
Gerard Witucki, Supervisory Hydrologist, Office of Land and Water Rights, SSC
A. W. Gray, Assistant Chief, Office of Land and Water Rights, SSC

Metropolitan Water District of California:

John Lauten, General Counsel
Frank Clinton, Assistant General Manager
John Anderson, Chief Electrical Engineer
H. J. Mills, General Manager
John Davenport, Deputy General Counsel
Don Brooks, Administrative Engineer
Al Hovanec, Manager, Land and Right-of-Way Division
John Read, Deputy General Counsel
Maynard Sien, Right-of-Way
John Hein, Right-of-Way
R. E. Whaling, Right-of-Way

Officials of the Metropolitan Water District of California with offices at Right-of-Way and Lands Division, Room 204, 1053 Sunset Blvd., Los Angeles, California (telephone - 626-4282, Ext. 460, Mr. Hovanec).

Topic: Title of 10-acre tract of land on which is located water well referred to as Pinto No. 1.

An extremely brief digest of the background showing the development of the problem involved is as follows:

In 1932 Congress of the U. S. passed a bill whereby many tracts of public land were conveyed to the Metropolitan Water District of California for the use of that District in the construction of the large water aqueduct providing water for the Southern California area which now contains approximately 10 million people. The subject act included a brief reversion clause providing for the title to revert to the

Government when the land was no longer used or needed for the purposes for which it had been granted as stated in the granting act.

In about 1933, water well referred to as Pinto No. 1 was drilled by the Metropolitan Water District.

In about 1942, or some time during the war, Kaiser Steel Company developed and operated an iron ore mine in the general area and was allowed to use water from the subject water well.

In about 1947, some formal agreement was entered into between Kaiser Steel Company and the Metropolitan Water District of California concerning the use of the water from the subject well. Kaiser Steel Company made application to the Government for a permit for the use of the water. A temporary or short-term permit, revokable in nature, was granted.

The Joshua Tree National Monument was created by Proclamation Number 2193, dated August 10, 1936, (50 Stat. 1760) and was affirmed by congressional action in 1950.

Some time during the next few years, upon application by the Kaiser Steel Company for a permit from the Federal Government for use of the water from the subject well, the problem of possible lack of need of this land by the Metropolitan Water District, or the lack of use of it for the purposes for which it was granted in the above-mentioned act of 1932, was referred to the Solicitor's office for determination as to whether there was possible revestment of title to the Government. Some time around 1960 Kaiser Steel Company drilled another well which was inadvertently located some 1,300 feet outside the boundary of the 10-acre tract involved. Upon application for a water permit, after the well was drilled, the erroneous location was determined, and the Kaiser Steel Company admitted trespass on Government lands. They were never granted a right to use water from the wells. Later they made application for use of water from well No. 1 and asked for permission to develop the area further with additional wells for their contemplated expansion program of their facilities in the area.

A short-term lease was offered to them which would be only for a matter of a couple of years and which would require that Kaiser Steel Company make investigation for additional sources of water within the area. In other words, Kaiser was informed that the use of this water would be granted only on an emergency basis after they had shown that there was no other source available to them and show that it was needed for domestic purposes, and not industrial, and that such need was not contemplated or reasonably foreseen as a possible consequence of their acts.

During the years of approximately 1960 to 1962 the question was submitted back and forth and the office of the Solicitor of the Department of the Interior decided that there was reasonable basis to believe that a factual situation existed which had caused reversion of the title to the Government under the terms of the granting act. Further investigation was requested. The National Park Service submitted to the Metropolitan Water District a "relinquishment" instrument whereby they would have relinquished all right and title and interest to the subject land. The Metropolitan Water District refused to admit reversion of title and contended that they owned the title to the land and they needed it for the purposes of the act. They submitted, under date of 1962, a letter to the Solicitor's office stating their position.

The matter then seemed to lie without further action being taken until Kaiser Steel Company recently made additional application for a permit to use water from the subject lands and to further develop the Pinto Basin Area for water development, which permit has been denied to date. The situation developed was such that the Solicitor's office believed that some action should be taken to determine whether title had reverted. The Solicitor's office, we are advised, requested that a meeting be held with the Metropolitan Water District to further clarify the issues and our position and to advise them of the action the Government intended to take in this regard. Regional Director, Western Region, advised this office of the meeting and requested that representatives attend the meeting.

Mr. A. W. Gray and Mr. Gerard Witucki made arrangements to accompany Mr. W. J. Costello, Field Solicitor, and Mr. Willis P. Kriz, Regional Land Liaison Officer, Western Region, to the meeting above-mentioned to attend for informational purposes only but being there to be of any assistance requested by Mr. Costello in their respective fields of expertise.

At the meeting, General Manager H. J. Mills opened the meeting by, in substance, asking what the problem was that caused the meeting and asked why the U. S. was trying to take this land away from the Metropolitan Water District. Mr. Costello stated the general background and mentioned that the question arose basically because of Kaiser's attempt to augment their water supply.

At a general discussion of many facets of the problem it became apparent that the Metropolitan Water District had acquired a very large number of parcels of land under the same act, many of which are being used for proposed routes and areas needed to divert waters from the aqueduct system in case of emergency (such as a breaking of a line where the flow would have to be diverted in order to accomplish repair). The position stated by the various officials of the Metropolitan Water District was, in substance, that if the title to this tract of land was

considered to have reverted in the Government then there was danger of the failure of their title to many other tracts of land acquired under the same act. Mr. Costello explained that as far as we were concerned we were interested only in the title to this 10-acre tract and no question had arisen on the other tracts.

Much discussion was had concerning the use by Kaiser of the water from the subject well. Metropolitan Water District stated that any use was exceptionally minor and certainly could do no harm. Upon being advised that there was a depletion of the water without full replenishment, they countered that proving the amount of replenishment would be difficult. After extended discussion it became obvious that Metropolitan Water District personnel were aware that the water table in the general area of the pumping well is presently being lowered at about a foot a year.

It further became apparent that the Metropolitan Water District was extremely sensitive to the economic climate of their entire area, the benefits to be gained by fostering and developing such industry as Kaiser Steel Company and their proposed expansion of the facilities in the area involved, etc. Many side issues were brought out and some discussion had before the conversation could be directed back into the problem at hand. It was clearly brought out that the Metropolitan Water District believed that they needed the land and that title still vested in them because in case of emergency caused by breakage of the line, either by possible flooding or possible earthquake or other causes, massive construction crews would be necessary to expedite repair and that water from the subject basin would be necessary to furnish the crews working in that particular area as well as having it available to transport to other sites. It was never contended that the water supply from this subject source would be needed to replace the flow of water through the aqueduct that supplied the some 10-million people in the Los Angeles area. It was pointed out, quite plainly, that a sale of the waters or allowing some private enterprise to use the water certainly was contrary to their position that they still had title to this land based on a need to save it for emergency purposes in the future.

It was brought out that in about 1963 the Metropolitan Water District had entered into an extended term agreement with Kaiser Steel Company for the water from this area for a term of 25 years. Additional discussion was had concerning need for California to encourage, stimulate, and develop such industry as the Kaiser Steel Company's planned action for which they say they need the subject water. Again the problem was brought back into proper perspective by pointing out to them that nobody

disagreed with their statements on this matter, but we were only trying to establish the intent of Congress in granting the "determinable fee" and the conditions upon which it would revert to the United States, i.e., the intent in Congress as expressed in the granting act of 1932.

Mr. Costello was asked by Mr. Frank Clinton, Assistant General Manager, what the National Park Service intended to do, and what they would consider doing if Kaiser Steel Company and their use of the water was not in the picture at all. Naturally specific answers could not be given at this time. Mr. Costello suggested that it would seem likely, and certainly serious consideration would be given to granting the Metropolitan Water District an extended term special use permit to use any and all of the water necessary in the event of an actual emergency in the future, if the Metropolitan Water District would relinquish their title to the lands back to the Government.

While accusations by Metropolitan Water District personnel of "Governmental confiscation of privately owned water rights," was countered with the apparent "exploitation of publicly owned assets by private concerns" (which successfully stopped "a scare word" type of offense by the Metropolitan Water District), it seemed to be the consensus that legal action by either party should be used only as a last resort and that some mutually agreeable meeting point should be discovered and the question settled amicably if at all possible.

It is the belief of the undersigned that upon termination of the meeting, with extremely friendly and cooperative feelings between all parties, the next move would be up to the National Park Service.

In a "post-mortem" critique of the meeting between the National Park Service' representatives, it was the consensus that the Metropolitan Water District of California would be extremely reluctant to admit that the title to the subject 10-acre tract of land had under any circumstances reverted in the United States for fear of clouding the title to their other tracts of land. The undersigned suggested the possibility of attempting to get the Metropolitan Water District to "donate" the land to the Government for national park purposes, in return for a long-term use permit for any water needed for and during emergency situations. This "donation" would be subject to the continuing rights of the Kaiser Steel Company under the existing term of their present lease and agreement, which is approximately 20 years. The Kaiser Steel Company's use of water could be limited and controlled and restricted to the one well in use without allowing future and further development.

In the meantime, Kaiser Steel Company could develop other sources of water for their needs. It is believed, from reading the various reports in the file, that Kaiser Steel Company may be able to develop adequate water resources from other wells in the Chuckwalla Valley. At any rate, there is some water production there and it has not been proven to be inadequate.

A. W. Gray

cc:
Field Solicitor, San Francisco
Regional Director, Western Reg.
Mr. Stewart - OLM-WASO
→ Mr. Witucki

SUMMARY OF PINTO WELL WATER PROBLEM, JOSHUA TREE

Kaiser Steel Corporation mines iron ore at Eagle Mountain south of the eastern panhandle of Joshua Tree National Monument. The processed ore is sent to Kaiser's Fontana steel works. Water is used in the mining and milling operations, as well as for domestic and irrigation purposes in the associated town of Eagle Mountain, which is essentially a mining camp.

Water in this area is almost exclusively confined to ground water; in the park, the Pinto Basin; outside the park, the Chuckwalla Valley to the south. The Pinto Basin is a closed basin and is wholly within the panhandle of the monument. Except for the extremely low rainfall on the basin, there is no apparent recharge. There is no surface inflow and high evaporation further mitigates against recharge. Underflow into the basin is not known or suspected, but geological studies indicate some ground water flows out of the basin into the alluvium of the Chuckwalla Valley. The amount of this outflow has not been determined. Water in the Pinto Basin is generally of a better quality than in the Chuckwalla Valley. The U. S. Geological Survey estimates that the supply from the Chuckwalla Valley even at very high withdrawal rates would last several hundred years.

Congress by Act of June 18, 1932, granted to the Metropolitan Water District a 10-acre tract from the public domain for use as a reservoir site and construction camp in connection with construction of the Metropolitan Aqueduct.

The Metropolitan Water District paid \$1.25 per acre for the land. The act called for revestment of the land in the United States "on the cessation of use of the land granted for the purposes of the grant." Pinto Well No. 1 was drilled on this land by the Metropolitan Water District. When the monument was established three years later in 1936, its boundaries included the 10-acre Metropolitan Water District tract and the Eagle Mountain mine and millsite which had not yet been filed on as a mining claim. In September 1950, the boundaries were changed and Kaiser's Eagle Mountain claims were excluded. The 10-acre tract, however, remained $1\frac{1}{2}$ miles inside the monument.

On August 31, 1950, Metropolitan Water District leased *the 10-acre tract to Kaiser Steel Corporation to run to 1972 "subject to paramount

*The right of Metropolitan Water District to lease the 10-acre tract to Kaiser was referred to the Solicitor, and at his suggestion, the Park Service, in August 1952, wrote the Metropolitan Water District requesting the relinquishment of the land which Metropolitan Water District declined to do. Although the Metropolitan Water District reply undoubtedly was sent to the Solicitor a final opinion on Metropolitan Water District's occupancy of the 10-acre tract has not been found in National Park Service files.

right of Metropolitan Water District to use the property in accordance with terms of said act approved June 18, 1932." The lease and amendments provide for use of Pinto Well No. 1 and for drilling and pumping other wells and as well as use of the Metropolitan Water District road right-of-way.

In 1957, the Kaiser Steel Corporation drilled a well, now known as Pinto Well No. 2, on monument land about 1,000 feet east of the 10-acre tract. Kaiser admitted its error and asked for a permit to use the well. It acknowledged the well belonged to the United States. No permits have ever been issued and the well has not been used. The well was test pumped and capped following its construction. The Solicitor's Office on being advised of the trespass by Kaiser subsequently brought about a settlement by the Department of Justice.

When the 1957 permit request from Kaiser was received, a draft was prepared covering a 2-year period, but it was laid aside because: (1) a possible exchange of lands would effect the language of the permit*; (2) the appearance of condoning trespass by issuance of permit; and (3) the possibility that other water sources existed. After the trespass case was settled, Kaiser again, still in 1957, asked for a long-term permit which was again denied. In April/May 1957, Kaiser drilled another well (Kaiser No. 7, also called Pinto Well No. 3) within its 10-acre lease, but interference with its own Pinto Well No. 1 resulted in less than the desired increase in yield. Again in December 1957, Kaiser requested a permit for Pinto Well No. 2. The Service offered a 2-year permit, and Kaiser replied that the need for supplemental water and the associated construction expense would not be justified with a 2-year permit. A redrafted permit was again submitted to Kaiser, but they now objected to the cost of \$3.75 per acre-foot as well as the lack of an assured right of renewal. Meetings with Kaiser officials and Service representatives followed. In December 1962, a draft permit was sent to Kaiser for comments. It would be issued for two years only, be revokable and would call for a \$500 annual fee plus \$2.50 per acre-foot for water pumped, not to exceed 50 million gallons per month. Kaiser's comments were not received nor was anything further heard until the recent meeting in Washington with Mr. Robert Maier of Kaiser Industries.

*Kaiser and the Service discussed exchanging Kaiser lands at Joshua Tree National Monument and at Chalmette National Historical Park for use of Pinto Well No. 2. Exchanges were not made although Kaiser did donate some land at Chalmette.

In mid-May 1967, Mr. Maier, by telephone reopened discussions on a special use permit. Chief, Branch of Water Resources, Edwin W. Reed and Special Projects Officer Manuel Morris and Mr. Maier met on May 25. Mr. Maier informally asked that a permit be issued for at least 20 years saying that this was necessary because the proposed extensive improvements at Eagle Mountain would be very expensive. Without an assured supply of water for emergency conditions to supplement what they now had, it would be difficult or impossible to undertake the improvements. He assured the Park Service that Kaiser would restore the site and the pipeline right-of-way, completely obliterating all construction scars, and provide such other supplemental landscaping as the Park Service may require. He also asked that Kaiser be permitted to drill additional wells in the Pinto Basin.

He was told that under emergency conditions, the Service would probably find it difficult to deny water for domestic purposes, but as the National Park Service is not a public utility, it would not wish to be a purveyor of water; nor, could it allow the resources of the park to be used for non-park purposes. Further, it is unlikely that any permit would be issued for more than the shortest period, two years being most likely, although five years would certainly be the maximum that Mr. Morris and Mr. Reed would recommend. Also, the Park Service would find it difficult to even consider the issuance of a special use permit until Kaiser had shown that all possibilities were exhausted for other water sources. Mr. Maier was advised to have Kaiser Steel submit its formal request which was done in its letter of June 5 from C. F. Borden, Executive Vice President.

On June 27 and 28, Mr. Joseph M. Trihey, Counsel for Kaiser Steel, Oakland, California, met with Mr. Morris in the Office of Land and Water Rights, San Francisco Planning and Service Center. In attendance were Fred Kunkel of the U. S. Geological Survey of Menlo Park, (Mr. Kunkel personally performed the hydrological studies* of the Pinto Basin and much of the Chuckwalla Valley), Merle Stitt, Western Region, Chief, Division of Resources Management and Visitor Protection, and William E. Fields, who would succeed Mr. Morris as Supervisory Hydraulic Engineer on June 30. Mr. Trihey repeated that the water was needed for emergencies. On being asked why Kaiser did not withhold its request until an emergency was imminent, he pointed out that

*Field work by the U. S. Geological Survey with periodic water level measurements (which are still continuing) produced the 1959 report, "Hydrologic and Geologic Reconnaissance of Pinto Basin, Joshua Tree National Monument, Riverside County, California," (published as "Water-Supply Paper 1475-0" in 1963). Administrative reports on the water levels have since been issued annually.

institution and continuation of Kaiser's expanded operations would be dependent on an assured supply of water which was not now needed but would be available without question when an emergency existed. He noted that Kaiser expects to create a city of 3,500 people as a result of its increased industrial development. He pointed out that it might be difficult to deny water to these people or to frustrate the development, and subsequent payrolls. When asked if Kaiser had considered applying for admittance into the Metropolitan Water District assuming they establish an appropriate municipal organization, he said that Metropolitan Water District was fully subscribed but that Kaiser had considered a contract with the State of California for Feather River Project water which could be delivered to Metropolitan Water District in the Los Angeles area. Kaiser would withdraw a like amount of water from Metropolitan Water District's aqueduct in the Eagle Mountain area, but the State wanted a 75-year agreement to which Kaiser objected. Mr. Trihey also indicated that Kaiser drilled three good wells of high yields in the Chuckwalla Valley, on Bureau of Land Management lands, east of Eagle Mountain. He did not state clearly, and all efforts to make him do so were unsuccessful, why Kaiser did not fully exploit these wells and the water resources of the Chuckwalla Valley. He said that a land owner at Desert Center which is considerably south of Kaiser's wells contended that Kaiser's pumping was interfering with water levels in his well. Mr. Trihey said that the water levels, in the complainant's well increased despite Kaiser's pumping, but Mr. Kunkel explained that although the well at Desert Center was in the same drainage and below Kaiser's wells, it was so remote from Kaiser's wells as to be unaffected by them. The change in the water level was a barometric phenomenon. He recommended that Kaiser pump its well without regard to the complaint of the downstream objector. Mr. Kunkel felt that it would be impossible to show interference. Kaiser's Chuckwalla Valley wells were authorized in accordance with Bureau of Land Management procedures, but Mr. Trihey left the impression that Kaiser has not implemented its efforts to enable it to get a full permit from Bureau of Land Management.

Mr. Trihey was advised that in view of the lack of evidence that water resources were not otherwise available to Kaiser, the Park Service could not consider the request for water for emergencies as altogether bona-fide. The master plan for Joshua Tree indicates a new major entrance to the monument at Pinto Basin with visitor facilities close to Pinto Well No. 2. This was pointed out to Mr. Trihey. Increasing the withdrawals from ground water storage would result in an increasing rate of lowering of the water table so when the Service puts its well (or future wells) into operation it would be pumping against an increased head. As a consequent, the cost for using its own water resources will be raised.

It should be noted that present withdrawals by Kaiser have been lowering the levels in the idle Pinto Well No. 2 at the rate of slightly less than one foot per year, although at this rate there appears to be little danger of exhausting the supply for at least one hundred years. Mr. Trihey again restated Kaiser's position that it would share in the cost of further ground water investigation and that it would restore the site so as to show no evidence of construction including the burial of all power lines and on-site storage facilities. It was left that the Service would make further inquiry within its own agency to determine how to best meet Kaiser's request. The matter was further discussed with Mr. McDowell and Mr. Bertsch, Division of Resources Management and Visitor Protection, WASO, who felt that the permit should not be issued.

It is the recommendation of Mr. Morris and Mr. Reed that a permit not be issued at this time, but, in lieu thereof, advise Kaiser by letter that Kaiser should be prepared to show it has exhausted all reasonable possibilities of meeting its water needs from other sources; that the water from Pinto Basin is intended for domestic purposes for a period of emergency; that a permit, when issued, would be for a period of two years (but consideration might be given for five years); that the permit would be renewable for emergency supplies in accordance with regulations which require revocation at the discretion of the Secretary, and may be revocable for cause except when meeting emergency needs; that the emergency be clearly understood it would be for the purpose of relieving an unforeseen domestic water shortage due to causes other than increased demand created by increased development; that specifically no water be provided for industrial or irrigation purposes; and, that a fee be charged for the water consistent with charges in effect by other utilities in the general area.

JOSHUA TREE - PINTO WELL CHRONOLOGY

- Apr. 17, 1947 - Kaiser Corporation to Custodian applied for permit for tram road.
- July 2, 1947 - Department of the Interior issued revokable permit to Kaiser Corporation to use 546 acres for road, tramway camp and millsite.
- Oct. 21, 1947 - Regional Director, Western to Chief Engineer, Metropolitan Water District, asked conditions under which Kaiser Corporation was pumping well (Pinto Well 1).
- Oct. 28, 1947 - Metropolitan Water District to Regional Director, Western. Land on which well was drilled is held by MWD under grant by Act of Congress and Kaiser Corporation and MWD have written agreement.
- Jan. 8, 1947 - Associate Director to Regional Director, Western - National Park Service has no grounds on which to protest use of Pinto Well because National Park Service has no plans to use water. MWD has title to land and presumably is still maintaining a camp on land. Land title does not give water right. The Service has no cause for alarm.
- Sept. 25, 1950 - Boundaries revised to exclude camp and millsite.
- Dec. 10, 1954 - Superintendent to Regional Director, Western. Reported Kaiser Corporation told him the company had drilled a well (Pinto Well 2) on Federal land by mistake. Company needed additional water for housing at Eagle Mountain.
- Dec. 27, 1954 - Kaiser Corporation to Superintendent. Admitted mistake in drilling on monument lands, requested permit to use land and operate well.
- Dec. 29, 1954 - Superintendent forwarded request for permit to Regional Director, Western.
- Jan. 6, 1955 - Regional Director, Western to Director. Forwarded request with statement that he assumed permit should be issued, with provision that water right be issued in name of United States and suitable fee be charged.

Joshua Tree - Pinto Well Chronology Continued.

- Jan. 25, 1955 - Acting Assistant Director to Regional Director, Western - No objection to granting revokable permit for three to five years with conditions as suggested and with understanding that Corporation will take steps to locate an alternate supply.
- Feb. 28, 1955 - Regional Director, Western to Superintendent. Asking him to prepare Special Use Permit with following conditions.
1. Three to five years period, no automatic renewal.
 2. Cover only land occupied by well and pipeline.
 3. Corporation would take steps to locate alternative source outside monument.
 4. Right of access for operation and maintenance.
 5. Water for wildlife.
 6. Restrict use to domestic and irrigation purposes.
 7. Restrict daily pumpage.
- Apr. 8, 1955 - Kaiser Corporation to Superintendent. Gave information on water use, population served, etc. Assumed if population increased water allowance under permit would be increased. Water would be used only for domestic and irrigation use. Water for wildlife would be made available. Area of land would serve as right-of-way for pipeline and powerline to connect Pinto Well 2 to Pinto Well 1 and system.
- Apr. 12, 1955 - Superintendent to Regional Director, Western. Submitted draft of Special Use Permit for approval. Limited pumping to 170,750 gpd.
- April 15, 1955 - Acting Regional Director, Western to Director. Transmitted Superintendent's draft of permit concurring in it but raising question of suitable fee.
- May 12, 1955 - Acting Assistant Solicitor to Director. Had reviewed draft of memo instructing Regional Director, Western to issue permit to Kaiser Corporation and believed consideration of legal action against Corporation should be given before permit issued which would condone trespass.

Joshua Tree - Pinto Well Chronology Continued.

- May 13, 1955 - Assistant Director to Regional Director, Western. Transmitted Solicitor's memo of May 12 asked for comments on possible suit suggested referral to U. S. Attorney at field level. Geological Survey should check water levels and make future checks.
- June 13, 1955 - Superintendent to Geological Survey, Long Beach, California asked costs of two inspections of well to determine static level.
- June 22, 1955 - Fred Kunkel, U. S. Geological Survey and Superintendent inspected well area.
- July 14, 1955 - Worts, U. S. Geological Survey to Regional Director, Western. Recommended reconnaissance study and report, continuing measurement of water levels.
- July 19, 1955 - Kaiser Corporation to Regional Director, Western. Raised possibility of exchanging private lands within monument for subsurface rights.
- Aug. 3, 1955 - Acting Chief, Division of Interpretation to Staff Coordinator, U. S. Geological Survey asked to expand study to include chemical analyses, geologic mapping, well inventory, estimate of ground water storage, prepare report.
- Aug. 19, 1955 - Acting Assistant Director to Regional Director, Western. Suspend action on permit pending further advice from Department.
- Sep. 2, 1955 - Acting Director to Assistant Secretary Lewis. Briefed Assistant Secretary on history of Pinto Wells.
- Sep. 7, 1955 - Acting Director to Assistant Secretary. Supplemented September 2 letter stating resolution of problem depends on whether Secretary wishes to approve validation under permit or start legal proceedings.
- Sep. 9, 1955 - Acting Assistant Director to Regional Director, Western. "If water cannot be obtained in the two excepted areas outside the monument we believe that the Kaiser Camp***should probably be permitted to obtain water from the ground water basin inside.

Joshua Tree - Pinto Well Chronology Continued.

- Jan. 20, 1956 - Acting Assistant Solicitor to Director. No authority for disposal of property (Pinto Well 2) only alternative is to refer matter to Attorney General. Negotiations with Kaiser Corporation should be discontinued until matter considered by Attorney General. Requested narrative statement.
- Jan. 27, 1956 - Superintendent to Regional Director, Western. Narrative statement.
- Feb. 8, 1956 - Assistant Attorney General to Solicitor. Referred to January 13 letter from Solicitor asked for information on well.
- Mar. 7, 1956 - Narrative statement prepared by B. F. Manbey.
- Aug. 7, 1956 - Superintendent to Regional Director, Western. Pinto Well 1 sanded up. Kaiser Corporation will make formal application for permit to use Pinto Well 2 for 60 - 90-day period.
- Aug. 9, 1956 - Regional Director, Western to Director. Teletype apprised Director of Kaiser Corporation likelihood of seeking permit.
- Aug. 14, 1956 - Assistant Director to Assistant Solicitor. Referred to sanding of Well 1 and probable request by Kaiser to use Well 2. Work on Well 1 could result in increased production without Service being able to impose desirable regulations. Recommended dropping suit for trespass, granting 90-day permit for Well 2 provided yield of Well 1 not increased. Also suggested extending 90-day period to permit agreement as to future use of water from Pinto Basin and nullification of MWD rights.
- Aug. 22, 1956 - Department of Justice and Kaiser Corporation representatives met.
- Sep. 10, 1956 - Kaiser Corporation lawyers to Department of Justice. Offered to settle trespass by paying for water withdrawn fencing site and to restore damage. Also, Corporation was getting temporary supply from MWD aqueduct.

Joshua Tree - Pinto Well Chronology Continued.

- Sep. 12, 1956 - Justice to Solicitor. Asked recommendations on Kaiser offer.
- Sep. 20, 1956 - Assistant Director to Solicitor. Kaiser offer satisfactory to National Park Service, but includes no commitment as to future action on permit to use Well 2.
- Sep. 27, 1956 - Solicitor to Justice. Transmitting National Park Service recommendations and suggesting that, in effecting settlement, Kaiser Corporation be requested to execute release of interests in well.
- Nov. 26, 1956 - Meeting with Kaiser Corporation representatives in Washington by National Park Service. Mentioned Chalmette.
- Nov. 28, 1956 - Assistant Solicitor to Director. Closing trespass case including release of interests in well.
- Jan. 22, 1957 - Chief of Lands to Director. Met with Kaiser Corporation representatives. Discussed Chalmette lands which are owned by Kaiser Aluminum, Kaiser Steel has no interest. Kaiser wanted immediate and temporary authorization to use Well 2. Then wanted legislation to assure Corporation of rights to use water from monument.
- Feb. 4, 1957 - Kaiser Corporation to Director. Asked for permit to use Pinto Well 2. Suggested Chalmette lands be considered separately.
- Mar. 11, 1957 - Director to Kaiser Corporation. Denied request on basis of public policy, other sources of water were available, but stated application not comparable to a situation where there would be offsetting benefits to the National Park system.
- May 18, & 19, 1957 - Kaiser tested Pinto Well 3 (also referred to as Kaiser Well 9).
- Dec. 3, 1957 - Meeting with Kaiser Corporation. Kaiser still wants to use Pinto Well 2.
- Dec. 6, 1957 - Not in file but apparently request to Director from Kaiser Corporation.

Joshua Tree - Pinto Well Chronology Continued.

- Dec. 9, 1957 - Assistant Director to Regional Director, Western. Informed him of Kaiser Corporation request for water from Well 2 in perpetuity. Chalmette lands owned by Kaiser Aluminum and it seems doubtful that anything can be worked out along that line. Possible exchange of Pinto well water for privately owned land in Joshua Tree mentioned. Boundary change also possible. Asked for comments.
- Jan. 28, 1958 - Chief of Lands to Assistant Director. Recommendations for action on Kaiser Corporation request for water from Pinto Well 2.
1. Exchange of water for Chalmette lands. Legislation probably needed.
 2. Trade water for privately owned land - weak approach.
 3. Outright denial.
 4. Sale of water.
- Jan. 29, 1958 - Regional Director to Director. Supply of water should not be granted for more than 20 years preferably 10. Objected to boundary revision.
- Mar. 13, 1958 - Director to Kaiser Corporation. Refers to Kaiser Corporation's letter of February 25 (not in file), states policy of Service opposes approval of commercial uses of land, but in this case would not be objectionable on temporary basis. Service agreeable to temporary permit for 2-year period while Kaiser attempted to locate alternate source. Charge \$0.01 per 1,000 gallons with National Park Service right to water from well. Service definitely opposed to exclusion of Pinto Well 2 from monument and granting permanent right to water.
- May 25, 1959 - Kaiser Corporation to Director. Answered March 13 letter. Nonrenewable clause would not justify expense. Pointed out public interest in maintaining steel-making facilities. Asked for consideration of automatically renewable permit to use Well 2 as supplemental source.

Joshua Tree - Pinto Well Chronology Continued.

- June 5, 1959 - Assistant Director to Kaiser Corporation. Request for supplemental water differs from previous request, asked for information on how much water needed on annual basis.

- June 8, 1959 - Acting Director to Regional Director, Western. Refers to donation of Chalmette lands by Kaiser Aluminum, but states this is independent of water problem. In view of generous donation, reciprocal cooperation is in order, but must be justified on its own merits. Asked for comments and recommendations on request for permit.

- June 26, 1959 - Assistant Regional Director, Western to Director. Called attention to proposed exchange of lands with S. P. land company.

- Aug. 14, 1959 - Acting Regional Director, Western to Director. Replied to June 8 memo. Charge of less than 1¢/1,000 gallon or period of more than 2 years can be justified. Permit should be subject to cancellation on 30-day notice.

- Oct. 5, 1959 - Kaiser Corporation to Chief of Lands. Estimate pumpage from Pinto Well 2 at 1,200 gpm. Would be agreeable to pumping minimum of 600 acre-feet per year at \$600 annually.

- June 24, 1960 - Kaiser Corporation to Chief of Lands. Commenting on draft of permit. Felt \$1.00/acre foot equitable rather than \$3.75/acre feet. \$500 annual charge should cover first 500 acre feet thirty day cancellation clause should be 90 days. Must have renewal rights.

- Sep. 2, 1960 - Acting Regional Director, Western to Director. Kaiser Corporation had visited regional office with entirely new proposal for land exchange. Region recommended Kaiser Corporation go directly to WASO.

- Sep. 19, 1960 - Associate Director to Regional Director, Western. Kaiser Corporation had expressed interest in exchanging lands in northwest part of Joshua Tree for lands in southeast including Pinto Well 2 area. This would require legislation. No comment made but would look into it.

Joshua Tree - Pinto Well Chronology Continued.

- June 22, 1961 - Associate Solicitor, Public Lands to Associate Solicitor Parks. Referred to proposed action to revert title in MWD tract to United States. Believed notice of Department's positions and intentions should be made known to MWD.
- Aug. 7, 1962 - Director to General Manager, MWD. Requested execution of formal relinquishment to United States of MWD tract.
- Sep. 17, 1962 - General Manager, MWD to Director. Interests of MWD require retention of tract.
- Dec. 18, 1962 - Acting Chief of Lands to Kaiser Corporation. Two copies of proposed permit sent. Asked for comments.

Offhand, it seems to us that a special use permit charge based on the gallonage drawn from Pinto Well No. 2 would be the soundest fee basis for us to use in a permit to be granted your Corporation. We note that you believe arrangements can be worked out in the field to install a gauge to determine such amount of water, as well as to assist in determining what the effect to the Monument would be from utilization of Pinto Well No. 2 to withdraw supplemental water.

We appreciate the point that you make concerning the heavy industrial requirements placed on your Eagle Mountain mining operations and that, therefore, you would like to have a revocable permit that would be automatically renewable annually for a longer period than the two years mentioned in our letter of March 13, 1958. We are asking our field people to look into and recommend on this feature also and will get in touch with you on it later.

If, by any chance, you are in immediate need of water for your Eagle Mountain operations, it is suggested that you have your local representative there get in touch with the Superintendent for a temporary permit to cover such a brief, temporary period as may elapse before we can have full field data on this matter for further discussion with you.

Sincerely yours,

/s/ Jackson E. Price

Acting Director

Copy to: Regional Director, Region Four (2), with copy of Mr. Calhoun's letter of May 25

this copy for JOTR Datt /
original in 63031

(Trotman)

C O P Y

KAISER STEEL CORPORATION

CHAD F. CALHOUN
President

Washington, D. C. Office
1625 Eye St., N. W., Suite 901
Washington 6, D. C.
Telephone Sterling 3-1555

May 25, 1959

Mr. Conrad L. Wirth, Director
National Park Service
Department of the Interior
Room 3104 Interior Building
Washington 25, D. C.

Re: Pinto Well Site No. 2
Joshua Tree National Monument

Dear Mr. Wirth:

Reference is made to your letter of March 13, 1958, and recent discussions between Mr. Ward, of my office, and Mr. Donald Lee, in charge of the Lands Division, with regard to Kaiser Steel Corporation obtaining permission to withdraw water from Pinto Well No. 2 within Joshua Tree National Monument in California.

We are appreciative of the offer made in your letter of March 13 to approve a special use permit for a two-year period under which our Corporation could withdraw water from Pinto Well No. 2 to supplement our existing water supply. However, the inclusion of a nonrenewable clause in the permit, in view of the heavy industrial requirements placed on our Eagle Mountain mining operations, raises serious doubts whether we can justify the further expenditures necessary to place this well in operation.

As we have previously stated, it may not be necessary to operate Pinto Well No. 2 on a continuous basis, and in this event it would only be used to augment our water requirements. It is highly essential, and also in the public interest we believe, for our mining operations to have an assured water supply so that there will be no adverse effect on our steelmaking facilities at Fontana, California.

Mr. Conrad L. Wirth

- 2 -

May 25, 1959

We are aware that National Park Service, in the absence of appropriate legislation, cannot grant a permanent right to withdraw water from this well. While we have no objections to your Service reserving the right to revoke the permit should it develop that there is a threat to the water supply or the resources of the Monument, nevertheless, we would appreciate your consideration of an agreement whereby the permit could be renewed periodically and automatically.

As you know, we have for a considerable period of time now been cooperating with the U. S. Geological Survey in the compilation of pump records with respect to the impact of withdrawals on water levels within the Pinto Basin. Our investigations and those of Geological Survey have indicated that there would be no adverse effect on the water level by withdrawing water from Pinto Well No. 2. However, we believe that arrangements can be worked out in the field to install a gauge to determine what effects would result from utilization of this well.

We would greatly appreciate your further consideration of this matter to the end that a mutually satisfactory arrangement can be worked out.

Sincerely yours,

/s/ Chad F. Calhoun

conditions, nor would it constitute an intrusion upon the landscape scene that will be objectionable on a temporary basis. Our studies to date also tend to indicate that the well water from Pinto Basin, as used by your Corporation, has been reasonably replenished by underground flow and has not presented a threat to flora and fauna life now found in that location.

You will recall that representatives of this Service in conference here informed you that studies were in progress to determine the effect, if any, upon the available supply of water resulting from past water withdrawals made by your Corporation. The checks that have been conducted thus far with your help, while favorable, have not been as exhaustive nor as comprehensive as we believe they should be. Accordingly, we consider that additional study of the water resources in the Pinto Basin area of the Monument and well use will be valuable to us. The temporary withdrawal of additional water by your Corporation, with a further study of its effect, would facilitate our obtaining more accurate knowledge of water conditions in the Basin than we now possess.

While we have considered your application fundamentally in the light of what its approval might mean to the Monument, its administration, and public enjoyment thereof, we are nevertheless cognizant of the point you make that the operations of your Eagle Mountain plant have been threatened with a water shortage that must be alleviated without delay if curtailment of work and production is to be avoided.

It is our understanding that you have been considering the drilling of additional wells in an effort to locate an alternate satisfactory water supply to Pinto Wells Nos. 1 and 3. To enable you to locate and perfect an additional or alternate supply of water, this Service is agreeable to approving a special use permit for a 2-year period under which your Corporation may withdraw water from Pinto Well No. 2 to supplement your existing water supply. Such a permit would be issued by us with the express understanding that there will be no renewal thereof. The special conditions of such a permit will have to be negotiated in the field. This would allow our studies of the Basin water resources to continue, and accord you relief while some other solution to your problem is perfected. However, should it develop during this 2-year period that there is a threat to the water supply or resources of the Monument, the permit would be subject to cancellation in the discretion of this Service upon 30 days advance notice, in writing, to your Corporation.

We have analyzed comparable water rates, taking into consideration the fact that the operation of the well and the withdrawal of water would be your responsibility, and believe that a charge of \$0.01 per thousand gallons, payable quarterly, would be fair and will set this forth as the rate in any permit issued to your Corporation. We would expect your Corporation to provide a suitable meter or measuring device so that the amount of water withdrawn from Pinto Well No. 2 by your Corporation would be definitely determined and recorded. Also, the permit would have to contain a provision reserving to this Service the prior rights to use a reasonable percentage of water available from Pinto Well No. 2 if such water should be needed for our administrative purposes. At present we are not using water from Pinto Well No. 2 nor do we have any immediate plans to do so.

This Service is firmly and definitely opposed to exclusion of any area in the vicinity of Pinto Well No. 2 from the monument or to the granting of a permanent right to withdraw and convey water from Pinto Well No. 2. We would oppose any proposed legislation to accomplish either end. Any pipelines or appurtenances installed by your Corporation under a permit issued by this Service would have to be temporary in nature and removed upon the expiration of the 2-year period mentioned above.

If an authorization along the above lines is satisfactory to your Corporation will you kindly advise us to that effect? Thereafter we will be glad to have our local representatives arrange to meet with you to prepare for consideration the detailed provisions and conditions of a special use permit for a 2-year period.

Sincerely yours,

Director

Copy to: Regional Director, Region Four (2)



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL LAND SERVICE
WASHINGTON 25, D. C.

L3031-L

December 13, 1957

Memorandum

To: Chief of Lands

From: Chief, Water Resources Section

Subject: Kaiser Steel Corporation Request to Use Water From Pinto
Wellsite No. 2, Joshua Tree

These are primarily the comments mentioned in last paragraph of air mail memorandum of December 9 to the Regional Director from the Assistant Director, but include comments on the memorandum of December 2 from Mr. Merriam, which has been received during my assembly of data.

A copy of the act of June 18, 1932 (HR-10048)(47 Stat. 324), authorizing grants to the Metropolitan Water District of Southern California, is attached as Exhibit A, for those to whom it is not readily accessible. It authorizes the Secretary to grant a 250 ft. right-of-way for the aqueduct at no cost, and to grant any other land for nearly any conceivable related purpose at \$1.25 per acre. The grants become effective when the maps are approved by the Secretary. It provides that "on the cession of use of the land granted for the purposes (plural) of the grant..." the land shall terminate and revert in the United States.

The debate, in the House, on the bill (HR-10048) has been found on pages 12116-12121 of the Congressional Record of June 6, 1932. Notes therefrom are attached as Exhibit B. House Committee Report 1136, and Senate Committee Report 801 have been reviewed and found generally favorable. Section 5 of the act seems somewhat ambiguous as to whether land granted at \$1.25 per acre may revert to the United States. The quotation from Mr. Vinson, item 2 of Exhibit B, seems to imply that only unused portions of the right-of-way (for aqueduct and power line) are subject to reversion to the United States. (At the time of this writing, some other records of the history of the bill are on order from the Library of Congress.)

Attached as Exhibit C, are the records from the NLM tract books concerning land disposal, other than the reservation of the land for Joshua Tree National Monument by Proclamation 2193 of August 10, 1936, in the area under discussion. The first observation is that 250 ft. aqueduct right-of-way was granted for multipurposes, including dumps and camp sites, under serial, or Receipt and Certificate No. 051203-Los Angeles; and the Pinto No. 1 wellsite, a reservoir site,

and connecting right-of-way for road and pipeline were granted under separate serial No. 051391-Los Angeles, both before the Monument was created. A third, and separate grant under serial No. 053305, for diagonal drainage was made after the Monument was created. A second observation from the tract books and map A-8-A, approved for the well-site, etc., under Certificate or Serial No. 051391-Los Angeles, is that the Secretary made no conditions or modifications as authorized by the act of June 18, 1932.

Subject to further information which may be obtained from the Archives records, it seems probable that the Metropolitan Water District of Southern California has purchased the wellsite in the Monument and right-of-way partially in the Monument to the reservoir and aqueduct which are no longer in the Monument. It is a fact that the well was only used to supply a construction camp and was leased to the Kaiser Steel Corporation because the construction camp is not now in use. However, it also seems probable that the District leased, rather than sold the well, wellsite and right-of-way to the Corporation with some idea that it might later be needed for an authorized maintenance or new construction camp during aqueduct repair or replacement. I do not think the District will relinquish the wellsite voluntarily.

Since the discussion on December 3, Assistant Vice President Ward, of the Corporation, has advised by letter of December 6 that they are "presently pumping the second well on the wellsite at 1,000 gpm, on an average of 15 hours daily", and are only holding Well No. 1 in reserve because of sanding difficulties when pumping, and that this quantity of water is sufficient for present needs. This rate converts to 900,000 gallons per day, or 27,000,000 per month. By comparison, the Corporation only used an average of 7,230,000 gallons per month from Well No. 1 in 1954, and 8,925,000 gallons per month in 1955. This is also equivalent to 1008 acre-feet per year, if continued that long, and the Corporation has previously estimated its 1957-1959 demands at between 700 and 900 acre-feet without commitment as to further increases.

An approximate analysis of the hydrological effect on the water resources is the subject of a separate memorandum to Dr. John C. Reed, Staff Coordinator of the Geological Survey to request more data which may have been assembled since June, and further studies which were suggested in the memorandum of December 9 to the Regional Director. For this memorandum, the following restatement may be more comprehensive:

1. The new Kaiser well appears to be yielding 1,000 gallons per minute only with a lowering of the water level which is not fully replenished in the 9 hours per day when the well is idle.

2. Although apparently not admitted by Messrs. Calhoun and Ward, the Corporation seems to recognize that the rate of pumping from any well in the MWD wellsite will have to be materially reduced in the very near future if the pump lift is not to become too economically impractical.

3. Federal Well 2 was capable of delivering $2\frac{1}{2}$ times as much water with the same lowering of the water level, or of delivering 1,000 gallons per minute with much less lowering of the water level, on December 4 and 5, 1954. There is no assurance that the well would now have the same capacity, and there is the following reason, among others, to believe it would not.

4. There was a five foot drop in the water level of Well 2 about six months after a three foot drop in the level in Well 1 in 1954, and both became relatively stable near the lower levels until mid-1956. There was a further drop of 15 feet in the water level in Well 1 between June 1956 and June 1957, but no records have been supplied to show whether this occurred relatively uniformly, or all after pumping of Well 9 began in May 1957. Assuming the latter case, and a six months lag such as that of 1954, falling water level in Well 2 may be expected to start about a month ago, in a period for which we do not yet have records.

5. The acute lowering of the water level in Wells 1 and 9 is only on one arm of the confined basin, and may not reflect such drastic results in the Basin as a whole, the situation cannot be fully determined without further records and analysis. On the other hand, similar drawdown by pumping Well 2 could affect water levels throughout the Basin more effectively because it is at the point of discharge from the confluence of all sources.

6. It would be advantageous to the United States and Corporation to know the present yield or specific capacity of Well 2, and whether it is affected by pumping Well 1 or 9, before considering permanent use or acquisition of it, and

its temporary use would not be any more detrimental to the permanent water resources in the Pinto Basin than to continue to pump from Well 1 or 9. For this reason, it is recommended that the Corporation be granted a temporary permit to use Well 2 if it will supply the pump in addition to that, or those, on Wells 1 and 9, and cooperate in tests in accordance with specifications to be supplied by the Geological Survey.

7. Subject to legal confirmation that the MMD Well 1-9 site is not subject to reversion to the United States, it is nonetheless true that it has only limited value as a source of supply for a camp smaller, or less developed than the Eagle Mountain Camp of the Corporation, and its future need by the District will be rare and limited. No permanent use or disposal of Well 2 should be made without an attempt to gain the District title to that wellsite in exchange for permanent emergency use of equivalent water from Well 2.

8. If Well 2, or an adjacent wellsite were excluded from the Monument and conveyed to the Corporation, as proposed, the area should be delineated to include no land over the confined waters in Pinto Basin, or so close as to permit pumping which would increase the gradient and accelerate the natural gravity flow from the Basin. This will require further geological investigation and probably exploratory drilling at a cost in excess of available funds of the next year and a half. This is not yet serious, if adequate pump tests of one or two years are to be made first.

9. If wells 1, 2 and 9 are all inadequate for the needs of the Eagle Mountain Camp, the only two alternative sources would be: (a) better located and spaced wells in Pinto Basin; or (b) properly spaced and located wells in Chuckwalla Valley. While the need for such alternative sources will not be evident without more data on Wells 1, 2 and 9, the Park Service should be thinking toward exploration of the possible use of water from Chuckwalla Valley. The exportation of water from Pinto Basin, without return flow, might result in continuing increase in the depth from which water will have to be pumped for all Monument developments in the large portion of the Monument which comprises Pinto Basin.

The value of the water of Pinto Well 2, or Well 9 (Kaiser 3), should be determined by a very competent appraiser, if used for land exchange. If the United States were to assign Well 2 and an exclusive wellsite on the basis of the Corporation use of 900,000 gallons per day,

which is reported to be the present use at 1,000 gallons per minute for 15 hours, it would be equivalent to selling land and appurtenant rights to 1.4 second feet of water. This is a scarce, desert water supply, and water rights had been sold in the Los Angeles area for as high as \$250,000 per second foot before the second World War. However, the value of water depends somewhat on the purpose for which it is used. It may be justifiable to pay that price for municipal purposes or the irrigation of citrus fruit trees in Los Angeles, but not justifiable to pay that price for water for the Eagle Mountain Camp which is justified only by the need for certain minerals. By comparison, the following values have been determined for certain lands in Death Valley, which are only valid to the extent that water is available for resort developments for seasonal use:

Nevares Tract, on basis of 0.62 sec.ft. of water

Multz appraisal of 1951	\$56,500 per sec.ft.
Court award of 1951	\$64,500 per sec.ft.

Saratoga Spring Tract

Hopper and Wakefield appraisal of 1956 based on 0.0332 sec.ft.	\$165,500 per sec.ft.
Court award of 1957, based on 200 AP/yr or 0.277 sec.ft.	\$ 52,400 per sec.ft.

From the above values, it appears to me that a wellsite which can provide 1,000 acre-feet per year, or 1.4 sec.feet of water for relatively local use should be worth about \$75,000 based on \$53,500 per sec.feet. That should be the value to the Metropolitan Water District of Southern California if it were to re-establish a construction camp on the adjacent aqueduct right-of-way. The Kaiser Steel Corporation might want a discount on the basis of longer conduit to place of use, but should pay the competitive price unless it can find water nearer, in the Chuckwalla Valley. We still lack the pump tests to prove that Well 2 can produce 1.4 sec.feet, however.

Although the Corporation is now obtaining 1.4 sec.feet from Well 9, on the MWD wellsite, available data suggests that it is not pumping within the safe yield. The 1956 Geological Survey Report suggests that not over 330 acre-feet should probably be pumped per year, at this time. On this basis, the MWD wellsite is only worth about \$25,000-- the price the Corporation has suggested paying for a site at Well 2 where it hopes to obtain three times as much water.

A. van V. Dunn
Chief, Water Resources Section

Attachments 3

Memorandum

JAN 7 1958

To: Regional Director, Region Four

From: Assistant Director

Subject: Kaiser Steel Corporation Request to Use Water From Pinto
Well Site No. 2, Joshua Tree

Attached are Mr. Dunn's comments concerning the subject request in the form of a memorandum to the Chief of Lands, which were promised in our air mail memorandum of December 9, 1957.

You will note that Mr. Dunn is still awaiting certain historical data concerning the act of June 18, 1932, from the Library of Congress; and concerning the specific grant of Pinto Well No. 1 site, and other lands under Serial No. 051391 from BLM Archives. Significant information from those records will be supplied when available.

There seem to be four significant conclusions to be drawn from Mr. Dunn's comments, namely:

1. MWD wellsite is probably not subject to reversion to the U.S. for nonuse, but this is a legal question that would have to be resolved by the Solicitor's Office.
2. The existing records suggest that the present rate of pumping from Well No. 9 may indicate that Kaiser Steel Corporation needs cannot be safely supplied from any of the three wells, and further records and pump tests are needed.
3. Confirmation of the second conclusion would make it necessary for the Corporation to use more wellsites in Pinto Basin, or find an alternative source in Chuckwalla Valley, and the latter should be encouraged, if or when necessary.
4. The value of a wellsite to include Well No. 2 may be at least three times the \$25,000 suggested by the Corporation, but should be determined on the basis of available water which must still be determined.

In compliance with the separate memorandum to Dr. Reed of the Geological Survey, please work out details for the first three items. If we allot only \$9,500 for further trenching at Furnace Creek, we can

obligate up to about \$2,500 for a Geological Survey report on items one and two, and further supervision of pump test at Well No. 2. We would probably have to follow Mr. Dunn's suggestion to have the Corporation provide the pump and make the test.

Mr. Dunn has suggested that the test pumping of Well No. 2 might be made with equipment of the Corporation, in consideration of the temporary use of the water. We are opposed to granting any Special Use Permit which might offer an entering wedge for more permanent use of the water. The permissive use would be nominally for the periods when Well No. 1 and Well No. 3 might be shut down as a part of the test. However, to use the water at all, the Corporation would have to restore at least a quarter of a mile of pipe to its system with a capacity of over two million gallons per day--at least a 10" or 12" pipe. Mr. Dunn also questions whether the alternative of pumping 1,500 gpm onto the surface at Well Site No. 2 would not cause serious erosion which should be prevented. These matters should be discussed with Mr. Kunkel before the matter is referred to the Corporation.

Mr. Dunn was not present at our recent discussions with representatives of the Kaiser Steel Corporation and his seventh item suggests an exclusion of Well Site No. 2 from the Monument which was proposed by the Corporation but not acceptable at this time to this office. We agree that it would be desirable to obtain Well Site No. 1-9, but have only considered the possibilities of reversion or purchase.

Assistant Director

Attachment

Copy to: Superintendent, Joshua Tree, w/c attachment

~~SECRET~~
L-54

WESTERN OFF	
DESIGN & CONSTR	
DEC 10 '56	
CHIEF	
ADMIN. ASSIST	
PERSONNEL	
PLANS & PROJ	
SAFETY	
ARCHITECT	
ENGINEER	
LAND. ARCH.	
ACTION TAKEN:	
None	

December 6, 1956

Memorandum

To: Regional Director, Region Four

From: Chief, Water Resources Section

Subject: Kaiser Steel Corporation, Pinto Well No. 2, Joshua Tree

Attached for your records are the following:

1. Copy of Release of Kaiser Steel Corporation interest in Pinto Well No. 2, dated October 23.
2. Letter of November 9 to the Assistant Attorney General from Attorney Stoddard of Cox, Langford, Stoddard and Cutler, by which the release and a check for \$240.55 were transmitted, which also indicates further work the Corporation has agreed to perform.
3. Letter of November 20 to the Solicitor from the Chief, Trial Section, Department of Justice, transmitting items listed above.
4. Memorandum of November 28 to the Director from the Assistant Solicitor, Parks, transmitting the above items.

The check is being sent to you by separate memorandum, as a fiscal matter.

The Release, item 1, should be filed at the top of contents of Part I-Historical Data, in Joshua Tree Docket No. 1. The original is being sent to the Superintendent, and a copy is being sent to the Western Office of Design and Construction, with copies of the rest of the instruments, and the Release should be filed in the same place in each office. All records are, thus, in Part I. The next action may be to grant the Corporation temporary use of the well. The need for an appropriate water right is not evident from the Kunkel report.

The Release has not been notarized, and therefore, cannot be recorded. Checking with the Solicitor's Office, it was also decided that recording might imply an undesirable Federal admission that the Corporation might have some interest to assign. For those reasons we were advised not to have the Release notarized or recorded.

A. van V. Dunn
Chief, Water Resources Section

Attachments 4

Copy to: Superintendent, Joshua Tree, with 4 attachments
Western Office of Design and Construction, with 4 attachments
Field Solicitor McClellan, with 4 attachments

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
Washington 25, D.C.

November 28, 1956

Memorandum

To: Director, National Park Service
From: Assistant Solicitor, National Parks
Subject: Settlement of Kaiser Steel Corporation Trespass in Joshua Tree National Monument

There are attached, for your information and appropriate action, the following documents relating to the Government's claim against the Kaiser Steel Corporation for trespass arising out of the drilling of a water well (Pinto No. 2) on Government land in Joshua Tree National Monument:

1. Copy of a letter dated November 20, 1956, to Solicitor Armstrong from Assistant Attorney General Morton advising that the offer in settlement made by the Kaiser Steel Corporation on September 10, 1956, has been accepted by the Department of Justice and that its file on the matter is being closed.
2. Check payable to the Treasurer of the United States and drawn on the Riggs National Bank, Washington, D. C., in the amount of \$240.55, representing the amount of cash involved in the settlement.
3. Release executed by the Kaiser Steel Corporation on October 23, 1956, releasing to the United States any and all interests in and to Pinto Well No. 2.

/s/ J. Edward Amschel
Assistant Solicitor
National Parks

COPY

COX, LANGFORD, STODDARD & CUTLER

November 9, 1956

Honorable Perry W. Morton
Assistant Attorney General
Lands Division
Department of Justice
Washington 25, D. C.

Attention: Mr. Robert E. Mulroney
Chief, Trial Section

Re: Kaiser Steel Corporation - Joshua Tree
National Monument - Pinto Well No. 2.

Dear Sir:

In accordance with your letter of October 18, 1956, in which the Department of Justice accepts the Kaiser Steel Corporation's proposed offer in settlement of the Government's claim against the Corporation for an unintentional trespass arising out of the drilling of a water well on Government land in Joshua Tree National Monument, enclosed herewith in settlement is a check in the amount of \$240.55 payable to the Treasurer of the United States in payment for the water and a release in duplicate executed by the Corporation of any interests which it may claim in the well structure and the surrounding site.

The Kaiser Steel Corporation has authorized us to inform you that it agrees to construct a fence around the well site at an approximate cost of \$50 and to perform work to restore the scenery damaged at the well site, said work having an approximate cost of \$150.00 as set forth in item (1) of your letter of October 18, 1956.

It is understood that the acceptance of this settlement is both without commitment on the part of the Department of the Interior with respect to the action to be taken by that Department on a future request by the Kaiser Steel Corporation for a permit to use the well and without prejudice to the right of the Kaiser Steel Corporation to request a permit to use the well taking into account the expenditures made by the Corporation in drilling the well.

Sincerely yours,

COX, LANGFORD, STODDARD & CUTLER

By /s/ Ezekiel G. Stoddard

COPY

R E L E A S E

KAISER STEEL CORPORATION, a Nevada corporation, hereby releases to the UNITED STATES OF AMERICA any and all interest in and to what is commonly known as Pinto Well No. 2, located in Joshua Tree National Monument and situated in the State of California, within the South Half of the Northeast Quarter of Section 4, Township 3 South, Range 15 East, San Bernardino Base and Meridian. Said release is without prejudice to the right of Kaiser Steel Corporation to apply to the Department of the Interior of the United States of America for a permit to use said well.

DATED this 23rd day of October, 1956.

KAISER STEEL CORPORATION

By /s/ R. H. Olsen
R. H. Olsen
Assistant Secretary



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Land Office
215 West Seventh Street
Los Angeles 14, California

IN REPLY REFER TO:

WEB

May 10, 1956

Herbert Maier
Assistant Regional Director
National Park Service
Department of the Interior
180 New Montgomery Street
San Francisco, California.

Dear Mr. Maier:

Reference is made to your letter dated May 4 and our letter dated May 7, regarding your request for duplicate photostatic copies of the application for special land use permit submitted by the Kaiser Steel Corporation under LA Serial #0121694.

In accordance with your request we are attaching duplicate copies of the application for special land use permit and our decision dated November 23, 1954, which rejected the application.

Very truly yours,

Paul B. Witmer
Manager

Enclosure.

5-10-1956 21694

RETURN RECEIPT

Received from the Postmaster the Registered or Insured Article, the number of which appears on the face of this Card.

KAISER STEEL CORP.

Date of delivery 1956

U.S. GOVERNMENT PRINTING OFFICE: 1954 (24-271)



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

IN REPLY REFER TO:

Los Angeles 0121694

DL:JAD

Land Office
1515 Post Office Bldg.
Los Angeles 12, Calif.

I certify that this is a true
and correct copy of the original.

Walter E. Beck
Walter E. Beck - Assistant Mgr.

NOV 23 1954

DECISION

Kaiser Steel Corporation,	:	Los Angeles 0121694
P. O. Box 217,	:	Application for Special
Fontana, California.	:	Land Use Permit

Application Rejected

On November 12, 1954, the above cited application was filed for use of the S $\frac{1}{2}$ S $\frac{1}{2}$ W $\frac{1}{2}$ of lot 1 of NE $\frac{1}{4}$ sec. 4, T. 3 S., R. 15 E., S.B.M., for the purpose of drilling a well.

This land is within the present boundaries of the Joshua Tree National Monument and not under the jurisdiction of this office.

In view thereof the application is rejected, this decision to become final 30 days from service of this notice should no further action be taken. There is a right of appeal.

Paul B. Witmer,
Manager.

Form 4-972
(Oct. 1950)Form approved.
Budget Bureau No. 42-3996.RECEIVED
LAND OFFICE
LOS ANGELES, CALIF.UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTI certify that this is a true
& correct copy of original.
Walter E. Beck
Walter E. Beck, Asst. Mgr.

NOV 12 1954

LOS ANGELES

Land Office

A M
7 10 19 11 12 1 2 3 4 5 6 7 8 9

Serial No. 0121694

Receipt No.

APPLICATION FOR SPECIAL LAND-USE PERMIT

Name KAISER STEEL CORPORATION

(Print full name)

of P. O. Box 217

(Street and number or R. D. number)

Fontana, California

(City or post office and State)

hereby apply for a special land-use permit for vacant public land, described as follows:

S $\frac{1}{4}$ of S $\frac{1}{2}$ of W $\frac{1}{2}$ of Lot 1, inthe NE $\frac{1}{4}$

(Legal subdivision or lot number)

Section 4Township 3 S.Range 15 E.San BernardinoBase andMeridian, State of California,for a period of 5 years (not exceeding five).Are you 21 years of age or over? corporationAre you a citizen of the United States? Yes ☒ No ☐ If yes, by birth ☐ by naturalization ☐corporation

(If naturalized, give court, date, and number of naturalization certificate. Corporation or other legal entity (specify))

If not a citizen, has the necessary declaration of intention to become such been filed? - - - -When? - - - - What court? - - - -What city? - - - -Have you examined the land? Yes ☒ No ☐ If yes, when? October 29, 1954Is the land now improved, occupied or used? Yes ☐ No ☒ If yes, by whom and for what purpose? - - - -Are there any springs or water holes on the land? Yes ☐ No ☒ If yes, give particulars - - - -From what source do you propose to obtain water for domestic or other use? drilled wellDoes the land contain minerals? Yes ☐ No ☒ If yes, specify - - - -Does the land contain timber? Yes ☐ No ☒ If yes, specify - - - -

(A permittee is not entitled to cut

timber, unless he obtains a permit to cut it, in accordance with the governing laws and regulations)

What use do you propose to make of the land? to produce water for use in Applicant's
nearby camp and millWhat improvements do you intend to make on the land? install and operate a water well

(Describe the improvements. Attach drawings, if convenient)

Give estimated cost of the proposed improvements. \$ 10,000.00What sanitation and toilet facilities will be provided? none are requiredIs this application made for your own use and benefit? Yes ☒ No ☐ If no, give particulars - - - -

I certify that the statements made by me in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

(Over)

KAISER STEEL CORPORATION

By Ray B. McManis
(Signature of Applicant)

Vice President

18 U. S. C., sec. 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

16-52747-1

INSTRUCTIONS

1. Applications must be prepared in duplicate and filed in the proper land office. If the land is in a State in which there is no land office, the application must be filed with the Bureau of Land Management, Washington 25, D. C.
2. Individuals will indicate whether a citizen by birth or naturalization. If citizenship is claimed by naturalization, a statement as to the court in which naturalized, and the date and number of the certificate if known, should be furnished; if not a citizen, that the necessary declaration of intention has been filed. A statement as to the date, place, court, and declaration number should be furnished. If an association or partnership, a copy of the constitution and bylaws, or articles of agreement and a statement of the citizenship of each member must be submitted.
3. If the applicant is a corporation, an application will be accepted if accompanied either by the minutes of the meeting of the board of directors, or a copy of the bylaws indicating the officer signing the application has authority to do so, or by certificate of the secretary or the assistant secretary of the corporation to that effect. A certificate of the secretary of state, where the land is located, that the corporation is qualified to do business in that State, or a reference to the previous case in which such a statement was filed, should accompany this application. A single copy of any additional information required by the provisions of this paragraph will be sufficient.

U. S. GOVERNMENT PRINTING OFFICE 16-68747-1

Applicant's by-laws evidencing the authority of the Vice President to sign the application, and a certificate of the California Secretary of State, where the land is located, that the corporation is qualified to do business in that State, are on file in a recent application.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Ground Water Branch

GROUND WATER AND RELATED GEOLOGY OF
JOSHUA TREE NATIONAL MONUMENT, CALIFORNIA

By
J. E. Weir, Jr., and J. S. Bader

Prepared in cooperation with the
National Park Service

OPEN-FILE REPORT

Long Beach, California
July 15, 1963

Table 2.--Data on water wells and springs in Joshua Tree National Monument, Calif.--Continued

USGS number	Source of data	Date of observa- tion	Owner or user or local name	Well and spring data				Measuring	Water		Other
				Year	Depth	Type	Pump	point	Altitude	level	
				com- pleted	diam (ft.)	eter (in.)	Yield and power	Use (gpm)	of lsd (feet)	Depth (feet) below lsd	data
<u>T. 3 S., R. 11 E.</u>											
3/11- 7Z1	R	1-18-62	-	1915	100	D -	NN -	Ds -	-	1,760	-
11Z1	R	1-18-62	-	1913	70	D -	NN -	Ds -	-	1,625	-
3/4JS	PS	11-14-61	Barrel Spring	-	-	- -	NN	D -	-	2,300	-
<u>T. 3 S., R. 14 E.</u>											
3/14- 6X1	GS	11-30-61	Black Eagle well	-	282	C 12	NN	- U	Te 0	1,220	274.05 -
<u>T. 3 S., R. 15 E.</u>											
3/15- 4J1	GS	11-16-61	Kaiser No. 2 (NFS) (1954)	1575	C 16	NN	- U	Ehc 0	1,080.6	154.94	C, L, W
4K1	GS	1- 9-61	Kaiser No. 1 (old) (1933)	6547	C 16	T 75	- I	Rpb 2.8	1,048.1	h120.11	C, L, W
4K2	GS	1- 9-61	Kaiser No. 3 (new) (1957)	675	- 20	T 75	- I	Tap 1.13	1,059.4	h130.59	6 1/2, L
<u>T. 4 S., R. 11 E.</u>											
4/11- 3D1	GS	11-15-61	Pinkham well	1915	25	D -	NN	- Ds	-	2,700	dry
3DG	GS	11-15-61	Pinkham Spring	-	-	- -	NN	D -	-	2,800	-

See footnotes at end of table.

See footnotes at end of table.

TABLE I

WATER RATE STUDY

March 2, 1958

Basic Data Calculations of Pumping Costs

Pinto Basin - Joshua Tree

1. 1000 gpm = 2.23 s.f. = 60,000 gpm = 0.1843 AF/hr 2. 20,400 AF would require 119,700 hrs of pumping (5535 hrs/yr)

a-Well 1

3. Altitude Well 1 = 1048.1 *
- Depth to water W.1 103.6 *
- Water level 944.5
- After 15 min. recovery
- Av. static water level 945
4. Specific capacity-well 1 18
5. Drawdown at 500 gpm 27.8 ft.
- (2 wells at 500 s.f.)
6. Drawdown water level at 500 gpm 917 ft.
7. Elev. Eagle Mtn. Camp 1300 ft. / or -
8. Static pump lift 383 ft. (using 2 wells on M&B site)
9. Friction Head 2.23 ft. (169 ft. through 41,000 ft. of 12" pipe)

(Lines 10-17 based on Friction head of 123, computed by formula, at home)
 (See revised page 2, based on Friction head of 169 ft. for steel pipe.)
 (Spaulding may have justifications, not given, for value of 106 for 2.21 s.f.)

10. Total pump head 506 ft. (2 pumps & wells in Wellsite 1)
11. Water H.P. 128.2 H.P.
12. Input at 75% Eff. 171.0 H.P.
13. Input at 75% Eff. = 127.5 KW
14. Required annual power 706,000 KWH
15. Cost req. ann. power @ \$4 \$3530.00
16. Req. 20 year power 14,100,000 KWH
17. Cost req. 20 yr. power \$70,500.00

b-Well 2

3. Altitude Well 2 1060.6 *
- Depth to water 154.9 *
- Water level 925.7
- (Static)
- Av. static water level 925
4. Specific capacity-well 2 46
5. Drawdown at 1000 gpm 21.8 ft.
6. Drawdown water level at 1000 gpm 903 ft.
7. Elev. Eagle Mtn. Camp 1300 ft. / or -
8. Static pump lift 397 ft.
9. Friction Head 2.23 ft. (169 ft. through 41,000 ft. of 12" pipe)

10. Total pump head 520 ft.
11. Water H.P. 131.7 H.P.
12. Input at 75% Eff. 175.5 H.P.
13. Input at 75% Eff. = 130.9 KW
14. Required annual power 721,000 KWH
15. Cost req. ann. power @ \$4 \$3615.00
16. Req. 20 year power 14,490,000 KWH
17. Cost req. 20 yr. power \$72,450.00

c-Well 9 (Kaiser 3)

3. Altitude Well 9 = 3 1058 **
- Depth to water 126
- Water level 932
4. Specific capacity-well 3 21
5. Drawdown at 1000 gpm 48.6 ft.
6. Drawdown water level at 1000 gpm 883 ft.
7. Elev. Eagle Mtn. Camp 1300 ft. / or -
8. Static pump lift 417 ft. (using 1 well on M&B site)
9. Friction Head 2.23 ft. 169 ft. (Spaulding for c=100-Q=2.23 3/3/58)

(Spaulding for 2.21 s.f. thru 40,000 ft.) 123 ft.
 (Approx. from Merriam's Treatise on Hydraulics 2.23 s.f. = 41,000 ft.)

10. Total pump head 540 ft.
11. Water H.P. 136.8 H.P.
12. Input at 75% Eff. 182.2 H.P.
13. Input at 75% Eff. = 136.0 KW
14. Required annual power 753,000 KWH
15. Cost req. ann. power @ \$4 \$3765.00
16. Req. 20 year power 15,070,000 KWH
17. Cost req. 20 yr. power \$75,350.00

WATER RATE STUDY

Revision of 3/3/58

a. Well 1b. Well 2c. Well 9 (Kaiser 3)

8. Static Head	383 ft.	383 ft.	8. Static Head	397 ft.	8. Static Head	417 ft.
9. Friction head (corrected 2/3)	169 ft.	169 ft.	9. Friction head	169 ft.	9. Friction head	169 ft.
10. Total pump head	552 ft.	552 ft.	10. Total pump head	566 ft.	10. Total pump head	586 ft.
11. Water HP	140 HP	140 HP	11. Water HP	143.5 HP	11. Water HP	149.7 HP
13. KW at 75% Efficiency	140.7 KW	140.7 KW	13. KW at 75% efficiency	144.2 KW	13. KW at 75% efficiency	150.3 KW
14. Required annual power	778,000 KWH	778,000 KWH	14. Required annual power	797,500 KWH	14. Required annual power	831,000 KWH
15. Annual pumping cost @ 1¢ KWH	\$3,890	\$3,890	15. Annual pumping cost @ 1¢ KWH	\$3,987.50	15. Annual pumping cost @ 1¢ KWH	\$83,100
17. Cost pumping for 20 years	\$77,800	\$77,800	17. Cost pumping for 20 years	\$79,750	17. Cost pumping for 20 years	\$83,100

* Manual 6/22/55

** Manual 6/20/57

TABLE II

March 3, 1958

CAPITAL INVESTMENT

	Water from MND Aqueduct	Water from MND Wellsite (Wells 1 and 3)	Water from Well 2 Federal	Remarks
1. Pump and pump house	\$ 5,000	(2) \$ 11,000	\$ 5,000	
2. Well #1 @ \$20 ft. (16")		10,940		
3. Well #2 @ \$20 ft. (16")			11,500	
4. Well #3-9 @ \$25 ft. (20")		16,875		
5. Piping between wells		6,000		
6. Powerline - 500 ft. at \$1	500			
7. Powerline - 11,500 ft. @ \$1		11,500	11,500	(\$10,000 not needed power at MND Wellsite)
8. Transformer	2,500	2,500	2,500	
9. Pump line-12"-300/ 5000 ft @ \$14	70,000			12" 300 Cl is now \$8.00
10. Pump line 12" stand. 41,000 ft. @ \$13 for		533,000	533,000	POB-12" stand.Cl is now \$6.02 POB
11. Spaulding's \$6,000/Wall 1 repair not needed for new wall				
12. Total Capital Investment	\$78,000	\$591,815	\$563,500	

TABLE III

Annual Costs for 20 years				
13. Maintenance on pipeline @ 7% per year	79,000	533,000	533,000	
14. Maintenance on other investments at 10% yr	16,000	117,630	61,000	
15. 20,400 AF of water at \$10/AF from aqueduct	204,000			
16. 20,400 AF pumped from MND Wellsite (Wells 1 and 3 or equivalent)		83,100		} See Sheet 1
17. 20,400 AF pumped from aqueduct	77,800			
18. 20,400 AF pumped from Well 2			79,750	
19. Rental of 10 ac. wellsite-10% yr on \$250/acre \$500/acre		5,000	10,000	Assume line from aqueduct all on mining claim
20. Annual cost of water resources inv.@ \$1,500			30,000	
Total Annual Costs	\$357,800	\$738,730	\$713,750	

21. TABLE IV COMPARATIVE WATER VALUES

Total 20 year cost of 20,400 AF if system scrapped on abandonment of mining (line 12 / 21)
(see next page)

TABLE IV (continued) COMPARATIVE WATER VALUES

	Water from MWD Aqueduct	Water from MWD Wellsite (Wells 1 and 2)	Water from Well 2 Federal	Remarks
22. Total 20-year cost of 20,400 AF if system scrapped on abandonment of mining (line 12 / 21)	\$445,800	\$1,330,545	\$1,277,250	
23. Cost per acre-foot	21.85	65.30	62.60	
24. Cost of 1020 AF/yr at Twenty-nine Palms (per AF)	86.91	86.91		
25. Cost of 20,400 AF at Twenty-nine Palms rate	1,773,000	1,773,000		See Supt.'s memo 5/15/
Funds available for distribution system				
26. If Kaiser sells water at Twenty-nine Palms rate (line 25 minus line 22)	1,327,200	442,455		It is quite probable that the Kaiser investment close to \$50,000

TABLE V

March 3, 1958

Derivation of Federal Charge for Water from Pinto Well 2
(For 10 to 20 years)

1. Cost of 20,400 AF from M&B Well site	\$1,330,745	
2. Cost of 20,400 AF from Well 2	<u>1,877,850</u>	
3. Difference		\$ 53,295
4. Rental on \$11,500 well for 20 yrs. @ 10% per year		23,000
5. Rental of 10 acres @ 10% of \$500 per acre for 20 years		10,000
6. Cost of water resources investigations @ \$1,500 p.y.		30,000
7. Total suggested Federal Charge for 20,400 acre-feet, in 20 years		<u>\$116,295</u>
8. Resultant charge per acre-foot \$5.70		
9. Resultant charge per 1000 gallons 1 3/4¢		

Derivation of Federal Charge for Water from Pinto Well 2
(For 2 year permit)

10. Charge for 2,040 AF (10% of Line 7) in 2 years		\$ 11,630
11. Cost of pump and pump house	\$ 5,000	
12. Cost of powerline	1,500	
13. Cost of transformer	2,500	
14. Cost of 1500 ft. of 12" pipe	<u>19,500</u>	
15. Total temporary investment by Kaiser	<u>\$28,500</u>	
16. Assembling and dismantling at 20% of investment		5,700
17. Adjusted charge for 2-year well use		<u>\$ 5,930</u>
18. Resultant charge per acre-foot \$2.90		
19. Resultant charge per 1,000 gals. 9/10¢		

Note: These charges do not include any allowance for impairment of Monument values, use or operation. The suggested charges per 1000 gallons might be increased to 2¢ for long term use, and 1¢ for short term to indicate some impairment without introducing a large penalty.

Other Supporting Information



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE
Water Resources Division
1201 Oak Ridge Drive, Suite 250
Fort Collins, Colorado 80525-5596

December 2, 1994

L54(479)
JOTR/Water Rights

Memorandum

To: Superintendent, Joshua Tree National Park
From: *WJ* Chief, Water Rights Branch
Subject: Request for Assistance, JOTR Memorandum of May 27, 1994

This responds to your May 27, 1994, request for assistance. The Water Rights Branch (WRB), Water Resources Division (WRD) has reviewed proposals for two projects located near Joshua Tree National Park (JOTR) and evaluated the potential for impact to National Park Service (NPS) water rights resulting from the withdrawal of groundwater associated with these projects.

The projects referred to are the Eagle Mountain Pumped Storage Project (EMPSP) and the Eagle Mountain Landfill Project (EMLP). Both projects are proposed just outside of JOTR's southeast boundary and will withdraw ground water during operation. WRD staff reviewed copies of the 1991 draft EIS/EIR for the proposed EMLP and the April, 1994, Application for FERC License submitted for the EMPSP to determine amount of use and location of ground water development.

We have concluded that the water use required for the proposed projects could reduce ground water levels in aquifers in the vicinity of these projects, including the Pinto Basin within the park. The NPS may have a water right in the Pinto Basin (Pinto Well Number 2) that could be affected by the proposed ground-water withdrawals. However, it is unlikely that withdrawals will have adverse impacts on the springs mentioned in your memorandum. This conclusion is based upon our review of existing water-rights and environmental documents and other information provided by your staff. Summarized below are impacts to park water rights, springs and aquifers that may result from the implementation of the EMPSP and EMLP.

Impacts to NPS Water rights - According to NPS water rights records, the NPS has acquired possession of Pinto Well Number 2, which was mistakenly constructed on NPS lands by the Kaiser Steel Corporation in November, 1954. Kaiser Steel Corporation released any and all interests in the well to the United States in October, 1956. The well appears to be on lands reserved from the public domain; therefore, the reserved rights doctrine may apply to

this well. There is, however, no information in NPS water rights records to determine that the NPS has ever used water from this well, or if the well has been capped and no longer available for use.

If the well has not been capped and before the NPS can argue that water levels in this well may be affected by the proposed projects, several tasks should be completed. First, the Solicitor's Office must determine whether the NPS is entitled to a Federal reserved water right for the well. Second, the NPS should document that they are planning to use this water (visitor center, campgrounds, etc.) at some time in the foreseeable future. Lastly, an extensive ground water modelling effort would be needed to more accurately estimate impacts to the well.

The WRB reviewed the NPS water right records and contacted the California State Water Resources Control Board regarding well records in the Pinto Basin and confirmed that there are no other documented NPS water rights or water uses within the Pinto Basin.

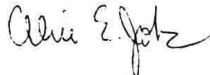
Impacts to Springs - Your memo states, "desert bighorn sheep and other wildlife depend on several springs in the area that could be adversely impacted from increased water consumption". JOTR staff provided the WRB a map with several springs highlighted as possibly being affected by ground water withdrawals from the proposed projects. These springs are located outside the former park boundary in the Eagle Mountains south of the Pinto Basin, although they may be included within the new Joshua Tree National Park boundaries (authorized on October 31, 1994). If these springs are now within the park boundary, it is possible that Federal reserved water rights exist for NPS and/or previous Bureau of Land Management purposes. If these resources are at risk, a determination would be necessary as to whether the reserved rights doctrine would apply to these springs. However, while these springs are critical to wildlife and other resources, it would appear from the limited water resource information available that it is unlikely these springs are hydrologically connected to the Pinto or Chuckwalla Basin aquifers since they are located in the mountains above the Pinto and Chuckwalla Basins. Rather, they appear to be fed by local ground water systems that would be unaffected by withdrawals from the proposed projects.

Impacts to aquifers - The Pinto Basin "is a typical desert valley formed by downfaulting along several major fault zones. The valley is filled with alluvium, and ground water in the alluvium discharges as subsurface outflow through an alluvium-filled gap at the east end of the valley." (From: Kunkle, F., 1963, Hydrologic and Geologic Reconnaissance of Pinto Basin, Joshua Tree National Monument, Riverside County, California, U.S. Geological Survey Water-Supply Paper 1475-O.) The aquifer receiving subsurface flow from the Pinto Basin is Chuckwalla Basin, also the aquifer from which both projects propose to divert ground water. Ground water withdrawals from either project will cause drawdowns within the Chuckwalla Basin, located outside of the JOTR boundary, and possibly within the Pinto Basin inside JOTR.

The EMPSP and EMLP documents do not provide sufficient information on the exact location of the proposed withdrawals, the amount of water to be withdrawn, or the estimated effects the proposed withdrawals will have upon groundwater levels within the park. This is viewed as a serious deficiency in that project impacts to adjacent water users should be evaluated and presented in these documents. Without site-specific data, the effect(s) of project-related groundwater withdrawals on water levels at the park boundary can only be estimated using coarse assumptions of hydrogeology and aquifer properties. Based on planned project water use rates, distances (estimated) of project wells from the Pinto Well, and other hydrogeologic assumptions, a rough projection of drawdown near the JOTR boundary indicates that small water level declines could occur at Pinto Basin Well No. 2 over 100 years from the development of either or both projects (this assumes the worst case that all groundwater use would occur nearest the park).

To summarize, the WRD reviewed available environmental and regulatory permit application documents, water resource and water rights information and discussed park resource threats with park staff. The EMLP and EMPSP documents fail to address groundwater development plans in detail sufficient to determine specific impacts to springs in the mountains above the Pinto Basin. However, other available documentation suggests that the potential for these projects to injure water-related park resources is unlikely. The legal status of NPS rights for water at Pinto Well Number 2 should be reviewed by the Solicitor and NPS plans for using water from this well should be clarified.

If you have any questions concerning this memorandum, please contact either Dan McGlothlin or Jeff Hughes of my staff at (303) 225-3536 or (303) 225-3527 respectively.



cc: JOTR - Billings, Stonum
WRO - Kolipinski

bcc: 479 - McGlothlin, Sharrow, Hughes, Rosenlieb, JOTR docket #1

254
JOTR/WK#1
AWK#4

PINTO BASIN STUDY

7/1976

On June 10, 1932, Congress passed H.R. 10048, entitled an Act Granting Metropolitan Water District of Southern California certain public and reserved lands of the United States in Los Angeles, Riverside, and San Bernardino Counties, in the State of California. This Act granted to the MWD, "subject to the reservation, until their disposition is hereafter expressly directed by law, of all minerals except earth, stone, sand, gravel, and other materials of like character", at no cost, land over which to build an aqueduct from the Colorado River to the metropolitan areas of Southern California. Further, the MWD was given the right to claim land near the aqueduct for use in conjunction with its construction or "any other necessary purposes of said district", for \$1.25 per acre. Section 5 of the Act said "On the cessation of use of the land granted for the purposes of the grant the estate of the grantee or of its assigns shall terminate and revert in the United States". Pursuant to this authority, in 1933 the MWD applied to the District Land Office for numerous tracts of land, among which was a wellsite in the SE $\frac{1}{4}$, E $\frac{1}{2}$ of Lot 1 in the NW $\frac{1}{4}$, sec. 4, T3S, R15E, and a right-of-way for access to it. These applications were approved, and in late 1933, MWD drilled a well on the site. However, apparently MWD use of the well ceased in 1933.

On Aug. 10, 1936, Joshua Tree National Monument was created by Presidential Proclamation. It included the MWD wellsite within its exterior boundaries. Sometime in the early 1940's, Kaiser Steel established a mine near the Monument. Its expansion brought a need for increased water usage, and in 1947, Kaiser and MWD entered into an agreement (Jan. 1, 1947), to last 25 years, which allowed Kaiser to use the wellsite. Its use was subject to the paramount right of use by MWD. As there was only one well on this tract, Kaiser decided to drill another. It did so in 1954, but located it on Monument property. After the United States notified Kaiser that it was in trespass, Kaiser released all claims to this well, in 1956. This well is called Pinto Well No.2. Still in need of additional water, Kaiser drilled Well No.3 on the original wellsite in 1957.

It is to be noted that ever since Kaiser decided it needed more water for its mining operations, there has been a conflict over the Pinto Basin wellsites. This is due primarily to the nature of the Basin itself. It is a closed basin, with the only water recharge coming from rainfall on the surrounding hills. As a result, accelerated pumping of the wells in the basin causes a gradual lowering of the level of the water table. However, the NPS response to this situation has vacillated over time. In the 1950's, Kaiser wanted a Special Use Permit to use water from Well No.2. Some NPS personnel favored granting it, to alleviate overpumping on the wellsite tract. Others felt only a temporary (2-year) permit could be allowed, while Kaiser developed other sources south of the Monument. A further solution, that of a land exchange, was nixed by the NPS, as was any long term permit to use the Well No.2. The issue was not resolved, and water levels continued to drop.

The 1960's saw a new approach by the NPS. It was suggested that title to the wellsite may have reverted in the United States, and at a meeting between the NPS and MWD in 1962, the MWD was asked to voluntarily give up its title to the tract. MWD refused to do so. Kaiser continued to pump the wellsite (a renewal of the 1947 agreement between Kaiser and MWD having been signed) and petition the NPS for a Special Use Permit to use Well No. 2. The NPS response was now to demand reversion of title. In fact, the NPS went so far as to request the Solicitor to have the Justice Department bring legal action against MWD to accomplish that goal. However, the Justice Department felt such a suit could not be won. Per a memo dated June 17, 1976, the Superintendent of the Monument is still desirous of a resolution to the Pinto Basin problem.

It is first noted that this is primarily a land problem, as that is what the 1932 Act dealt with. Of course, it is the water use on the land which is causing most of the NPS concern.

Possible alternatives short of acquiring the wellsite tract.

1. The memo from the Monument Superintendent indicates that he is worried about ingress to Monument lands from the wellsite tract. The brief history outlined on the previous page noted that MWD obtained the tract and a right-of-way for access to the tract in 1933. Therefore, MWD has the right to use that land for the purposes listed in the 1932 Act. However, one possible solution might be to fence in the wellsite tract, preventing access to Monument land from that area. Further, it might be helpful to determine whether people going to the wellsite tract are actually using the proper right-of-way. If not, the Service could attempt to restrict them to the correct access route.
2. Allow Kaiser to use water from Well No.2 under a Special Use Permit. This would help the water problem, as a permit can be conditioned to give the NPS some control over total water usage in the Pinto Basin by Kaiser.. Letting Kaiser use Well NO.2 water would alleviate heavy pumping on the wellsite tract wells, thus reducing overall water table lowering.

Alternatives involving acquisition of the wellsite tract.

1. Condemnation. Perhaps a forced sale of the wellsite tract by MWD - but this is questionable. Since MWD holds title to the tract by Act of Congress, this could have adverse effects upon a condemnation action. (Research would have to be done to see if this approach is feasible).
2. The memo from the Superintendent indicates that he seems to feel that MWD might be willing to release its title to the US. One course of action would be to inquire of the Superintendent whether he has any concrete basis for his belief - has MWD given him some reason to think it would be likely to voluntarily relinquish its title? If so, the Service could give MWD in exchange a long term permit to use the wellsite tract for whatever purposes in event of an emergency on the aqueduct. This is a doubtful choice, as MWD has already rejected this idea in 1962 and 1968. MWD feels if it relinquished title to this tract, its title to numerous other tracts it holds under the 1932 Act will be jeopardized. Further, MWD is certainly aware of the financial advantage it gains in permitting Kaiser to use the wellsite under lease.
3. A land exchange between MWD and the NPS. This was attempted between Kaiser and the NPS in the late 1950's and failed. For the reasons given under No. 2 above, this alternative is unlikely. (Note that special legislation in Congress would also be needed here).
4. Court action: As noted previously, in 1969 this course of action was rejected by the Solicitor and the Justice Department. This was due to hesitation by the Solicitor in getting involved in an interpretation of the 1932 Act, which would of necessity have to be attempted to cause a revestment of title in the United States. The NPS would have to look to section 5 of the 1932 Act, quoted at the beginning of this narrative. This section says that title will revert to the United States "on the cessation of use of the land granted for the purposes of the grant". This is the headache area for the Justice Department - what was the purpose of the grant? To determine this, standard interpretation techniques would be used, such as looking to the language of the Act itself, checking out the legislative history of the Act, and perhaps noting the historical setting in which the Act was passed. The language of the Act speaks in terms of "necessary purposes of said district". The legislative history notes the purpose of MWD was to bring water from the Colorado River to metropolitan Southern California. Thus, it seems to me that the land was granted to MWD in conjunction with the building and maintenance of a means of getting water to Southern California. I do not think leasing of the parcel to a steel company for mining purposes is contemplated by the 1932 Act. As for MWD's worry over such court action setting a poor precedent for its keeping title to other tracts claimed under the Act, it would be useful to see if MWD

has leased other such tracts for unrelated purposes. If not, this court action would not be a dangerous precedent to MWD.

August 28, 1961

L 54

Spaulding
Whitworth
Manbey
Beck
Wosky

Memorandum

To: H. D. Wilson, Jr., District Engineer, GW, USGS,
Room 205, 2929 Fulton Avenue, Sacramento 21, California

From: Acting Assistant Regional Director, Region Four

Subject: Ground-Water Investigation, 1962 Fiscal Year,
Joshua Tree National Monument

The National Park Service requests the Geological Survey to make an areal hydrology study at Joshua Tree National Monument in the 1962 Fiscal Year as outlined in Geological Survey memorandum dated April 26, 1961 and advises that \$6,000 has been made available for the work, including personal services.

We request that the Geological Survey make a single measurement of the water level in Pinto Basin Well No. 2 for which we understand there is to be no additional charge.

Funds covering the cost of this work will be transferred to the Geological Survey upon the presentation of Standard Form 1081 to the National Park Service, Washington, D.C. The funds are chargeable to Appropriation 14X1035, Work Order 4-WR-62-B, Account 102.5.

It is agreed that all data and reports resulting from this investigation may be released to the open file or published by the Geological Survey.

(SGD) JOHN B. WOSKY

Acting Assistant Regional Director

Copy to: Director (2)
Chief, WDC (2)
Supt., Joshua Tree

bc: Mr. Beck

LSSpaulding:lq

L54

May 25, 1961

Memorandum

To: Regional Director, Region Four
From: Chief, Water Resources Section
Subject: Water Level Measurements, Pinto Wells, Joshua Tree

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None			

Your arrangements with the Geological Survey for only one measurement of the water level in Pinto Well No. 2 during 1962 is probably satisfactory. However, the hydrograph with Mr. Whitworth's memo of May 15 to the Superintendent suggests that subsequent measurement of the water in Well 1 or 3 may become necessary if Kaiser continues to use them.

The graph suggests that Kaiser may now be bringing the water level in Wells 1 and 3 to, or below the level of water in Well 2, and the water level in Well 2 has dropped this year for the first time since about 1956. If the 1962 measurement of Well 2 shows further marked drop, it will probably show that water levels in lower Pinto Basin are affecting the levels in Well 2, which is beyond the restricting dike. This would be a basis for protest if this Service wished to use water and had to contend with increasing pump lift.

I think the 1962 measurement of water in Well 2 should be about the same date as the last measurement, at the end of March. Any further consideration of Wells 1 and 3 could probably wait until the beginning of the 1963 F.Y.

SIGNED

A. van V. Dunn
Chief, Water Resources Section

Copy to: Superintendent, Joshua Tree
✓ Chief, WODC (2)

K

Spaulding

Whitworth

Manbey

Persons

Wosky

Merriam

May 2, 1961

30

Memorandum

To: Geologist in Charge, USGS, Long Beach, California
Through: District Engineer, GW, USGS, Sacramento, California
From: Regional Director, Region Four
Subject: Ground Water Investigations, 1962 FY,
Joshua Tree and Death Valley National Monuments

The program of ground-water study at Joshua Tree and Death Valley as set forth in your memorandum of April 25 is satisfactory.

Starting with Fiscal Year 1962 it will be satisfactory to make a single annual measurement of the water level in Kaiser Well No. 2 in Pinto Basin rather than continue quarterly measurements.

WR#1

The Park Service request for appropriations for fiscal year 1962 includes a general ground water study at Joshua Tree (\$6,000) and continued measurement and tabulation of spring discharges at Furnace Creek, Death Valley (\$500). As soon as funds are known to be available we will prepare a letter as you have suggested formally requesting USGS assistance.

(SGN) LAWRENCE C. MERRIAM

Regional Director

Copy to: Director (2)(w/2 cys of USGS memo)
Supt., Joshua Tree (w/cy of USGS memo)
Supt., Death Valley (w/cy of USGS memo)
Chief, WGDC (2)(w/2 cys of USGS memo)

LSSpaulding:lq



Chief, Water Resources Section, NPS

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Water Resources Division
Ground Water Branch
221 Redondo Avenue
Long Beach 3, California

WR#1

April

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NPS REGION FOUR OFFICE	
MAY 1 '61	
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To: Regional Director, Region Four, National Park Service
180 New Montgomery Street, San Francisco, Calif.
Attention: Regional Chief of Operations
Through: District Engineer, GW, USGS
Sacramento, Calif.

From: Geologist in Charge, USGS
Long Beach, Calif.

Subject: Ground-water investigations during the 1962 fiscal year,
Joshua Tree and Death Valley National Monuments, Calif.

The following is an estimate of the scope and costs of the work program that the Geological Survey is conducting at the request of the Park Service, together with some suggestions as to a realignment of the program.

Scope of ground-water study at Furnace Creek Wash,
Death Valley National Monument

At the request of the Park Service, the Geological Survey has been making discharge measurements of springs in the Furnace Creek Wash area since 1957. The following program for the Death Valley National Monument is suggested for the 1962 fiscal year.

1. Continue making one set of annual measurements of the flow from springs in the Furnace Creek Wash area and collect records of periodic measurements by the Borax Corp. The measurements by the Geological Survey will be an independent check on the measurements by the Borax Corp.
2. Assist the Park Service in selection of test-well sites, preparation of well specifications, and analysis of the results of test drilling.

Scope of the continuing study at Pinto Basin,
Joshua Tree National Monument

The Survey has been making quarterly measurements of the water levels in three wells in the Pinto Basin and has been furnishing the Park Service with the water-level records. My memo of January 23, 1961, suggested that measurement of two of the wells (Kaiser 1 and 3) be discontinued because valid measurements of static water level were not being obtained, and that measurements of Kaiser well no. 2 be reduced to an annual basis. In his memo of February 6, 1961, the Regional Director of the Park Service concurred in the discontinuation of water-level records for wells 1 and 3 but requested that quarterly measurements of well no. 2 be continued.

We again suggest that measurements of well no. 2 be reduced to an annual basis. The measurements of this well indicate little change in the period of record and such change as occurs would be adequately shown by annual measurements.

Scope of additional suggested studies at
Joshua Tree National Monument

Mr. Kunkel's memo of March 28, 1960, suggested that a rather detailed ground-water study be made of the entire Monument. It is again suggested here that such a study be made. The Survey has twice been called upon to advise the Park Service on the locations of water-supply facilities on the basis of a very brief reconnaissance. Such a recon can uncover the more obvious hydrologic features of a local area, but for intelligent water utilization there is no substitute for a sound knowledge of the hydrology of an entire area, particularly of an area where water is as difficult to obtain as at the Monument.

The scope of such a study would include the following:

1. Assemble and tabulate all existing data on wells and springs within the Monument.
2. Prepare a reconnaissance geologic map of the Monument showing the areas of water-yielding deposits. This would include Upper and Lower Covington Flat, Indian Cove, Lost Horse Valley, Queen Valley, Pleasant Valley, Music Valley, and Pinto Basin.
3. Continue annual measurements of the water level in Kaiser Well no. 2 in Pinto Basin.
4. Prepare a report summarizing items 1, 2, and 3. In accordance with the responsibility and objectives of the Geological Survey, it is agreed that this report, after submittal to the Park Service, will also be made available to the public by open-file release or publication.

5. Continue to assist the Park Service in selection of test-well sites, preparation of well specifications, and analysis of the results of test drilling.

Costs for the program in the 1962 fiscal year

It is estimated that costs for the program described above will be as follows:

Cost of continuing measurement and tabulation of spring discharges at Furnace Creek, Death Valley National Monument -----	\$500
Cost of continuing measurement of water levels in Well no. 2 at Pinto Basin	
- if quarterly measurements are made -----	\$500
- if annual measurements are made -----	no charge
Cost of geologic and hydrologic study of the Joshua Tree National Monument area -----	\$6,000

Thus, the total cost for the program outlined above, for the 1962 fiscal year, is estimated at \$7,000, or \$6,500 if only annual water-level measurements are made in Pinto Basin. This does not include supervision of test-well drilling. Supervision of test drilling might require a revision of the cost estimate to include the extra expenses. Also, any prolonged period of supervision of test drilling would be dependent upon the availability of personnel.

If the program outlined above is acceptable to the Park Service and when funds for the 1962 fiscal year become available, so that this agency can proceed with the work, please supply a letter to Mr. H. D. Wilson, Jr., District Engineer, Room 205, 2929 Fulton Avenue, Sacramento 21, Calif., about as follows:

"The National Park Service requests the Geological Survey to make ground-water studies at the Joshua Tree National Monument and Death Valley National Monument in the 1962 fiscal year as outlined in Geological Survey memorandum dated April 26, 1961, and advises that \$7,000 (\$500 DVNM, \$500 JTNM water-level records, \$6,000 JTNM areal hydrology study) has been made available for the work, including personal services. The funds are chargeable to appropriation _____ (to be filled in by NPS) to finance the work.

"Funds covering the cost of this work will be transferred to the Geological Survey upon presentation of Standard Form 1081 to the National Park Service (Region Four, San Francisco, Calif., or Washington, D. C.)

"It is agreed that all data and reports resulting from this investigation may be released to the open file or published by the Geological Survey."

Acceptance of this work is subject to approval by the Geological Survey and the availability of qualified personnel.

G. M. Hogenson

GMH/lm

cc: Chief, Water Resources Section, NPS
Chief, GWB, USGS
Branch Area Chief, GW, USGS
District Engineer, GW, USGS

LS4

February 16, 1960

Spaulding

McChallish

Whitworth

Manbey

Wosky

Memorandum

To: Superintendent, Joshua Tree

From: Regional Chief of Operations

Subject: Pinto Basin Hydrologic Studies by U.S. Geological Survey,
Joshua Tree National Monument

Attached for your information is a copy of the U.S. Geological Survey administrative report entitled "Summary of Hydrologic Studies at Joshua Tree National Monument, Riverside County, California, 1957-1959." Also attached are tables of data showing well pumpage and water levels through December, 1959. These data were received with Mr. Kunkel's memorandum of February 4, a copy of which is attached.

Please note that the report is marked "Administrative Report. Not for Public Release. Subject to revision." Mr. Kunkel told us by memorandum of August 24 that official transmittal to the Park Service would be by the Director of the Geological Survey, Washington, D.C. Presumably sufficient copies will be provided at that time for distribution to all offices.

These attachments supplement the basic report dated 1956 containing pumpage and water levels through December, 1955, a copy of which was sent you with our memorandum of March 28, 1957. The attached report dated 1959 contains records through December, 1958. The attached loose sheets revise certain pages of the basic report and provide pumpage and water levels through December, 1959. The 1959 report and the loose sheets also contain data on the Cottonwood Area well drilled by the National Park Service which the U.S.G.S. refers to as "Well 10." For ease of reference we suggest the attachments be filed with your copy of the basic report.

In regard to your suggestion in your memorandum of January 12 (L3031) that a water right filing be made for Well No. 2 it is our understanding that unlike Nevada there is no provision under California law for the filing of applications for rights to ground-water.

(SGD) JOHN B. WOSKY

Regional Chief of Operations

Attachments

Copy to: Director (2)(with all attachments)
Chief, WODC (2)(with copy of Kunkel's memo and with loose sheets)

LSSpaulding:lq

this copy for ~~file~~ JTR Docket 1
in L3031

L3035-OBL

June 8, 1959

Memorandum

To: Regional Director, Region Four

From: Acting Director

Subject: Supplemental Water Supply, Kaiser Steel Corporation,
Pinto Well Site No. 2, Joshua Tree National Monument,
California

During the course of discussions with us immediately prior to the time the Kaiser Aluminum & Chemical Corporation donated to the United States its valuable holdings at Chalmette National Historical Park, Mr. Richard Ward, Assistant to Vice President Chad F. Calhoun of the Kaiser Steel Corporation, mentioned that the Corporation would like to obtain our cooperation in securing water from Pinto Well No. 2 at Joshua Tree National Monument. However, the donation of the Chalmette lands was entirely independent of the water problem of the Kaiser Steel Corporation involving its Eagle Mountain plant near Joshua Tree National Monument. As you know, the two corporations are technically separate entities, but there is an interlocking relationship between the Directors, and possibly even of stockholders.

In view of the generous donation of the Kaiser Aluminum & Chemical Corporation, we do feel that reciprocal cooperation on our part would be in order. Nevertheless, anything that we do at Joshua Tree National Monument with respect to Pinto Well No. 2 water should stand on its own merits and be justified independently of the donation.

There are attached two copies of our self-explanatory letter of June 5 to Mr. Chad F. Calhoun, Vice President of the Kaiser Steel Corporation, which mentions that we desire a field report and recommendations from you on the Company's request for a permit to obtain supplemental water from Pinto Well No. 2 to augment its water supply as obtained from Pinto Wells Nos. 1 and 3.

(SGD) JOHN M. DAVIS

~~Acting~~ Acting Director

In duplicate

Attachments 2



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON 25, D. C.

March 5, 1958

Memorandum

To: Regional Director, Region Four

From: Chief of Lands

Subject: Suggested Charge for Water of Federally Owned Pinto Well No. 2, Joshua Tree

Attached, to keep our respective records complete, are two copies of Mr. Dunn's memorandum suggesting that the United States should charge \$5.70 per acre-foot for Well No. 2 water on a long-term basis, or \$2.90 per acre-foot on a short-term basis. A similar copy is being sent to the Superintendent.

Also attached is a copy of the memoranda of February 14 to Mr. Dunn from Mr. Kunkel. You already have a copy of letter of the same date to Mr. Johnston.

The memorandum to Mr. Johnston supports Mr. Spaulding's statement that the annual rate of withdrawal from Pinto Basin has only been about 60% of the suggested 1020 AF per year. The main complication seems to arise from reported recent attempts to increase the peak rate of pumping from 1000 gpm to 1500 gpm from Well No. 9 (Kaiser No. 3) on the MWD wellsite. If we grant the use of Well No. 2, it will be with the understanding that Wells Nos. 2 and 9 will both be used at such rates less than 1000 gpm as will be fixed by further study as safe for the wells.

Mr. Dunn points out that the memorandum to him does not rule out an alternative source in Sec. 15 or 16. However, it might require two or more additional wells to determine whether there is a concentrated discharge from Pinto Basin, and how far it is from the MWD well of 1932.

Donald E. Lee
Chief of Lands

Attachments 2

Copy to: Superintendent, Joshua Tree, with 2 attachments

IN REPLY REFER TO
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Chief of Lands

March 4, 1958

Chief, Water Resources Section

Suggested Charge for Water of Federally Owned Pinto Well No. 2,
Joshua Tree

As agreed during the conference with Messrs. Marrian, Price, and you, after the Regional Director's conference of last month, I have developed the following potential charges for the use of water from federally owned Well No. 2 by the Kaiser Steel Corporation:

1. On basis of 1000 AF per year for 20 years: \$5.70 per AF, or \$0.0175 per 1,000 gallons.
2. On basis of 1000 AF per year for 2 or 3 years: \$2.70 per AF, or \$0.0089 per 1,000 gallons.

The long time rate had to be determined as a basis for the short term rate. Both rates may be desired for further negotiations.

In my memorandum of February 5 to the Regional Director, I suggested a single derivation from Mr. Spaulding's comparisons which did not prove practical because the cost of water from the MWD Aqueduct could not be used as a base. I have used the city rate at Twenty-nine Palms for alternative comparison. For his comparisons Mr. Spaulding used a price of \$1 per foot for 12 inch pipe in place, which was adequate for his purposes, but not sufficiently realistic for my purposes. Such pipe costs from \$6 to \$8.02 per foot, FOB, and about double those prices, in place, for replacement purposes. He also assumed the cost of second hand pump installations at \$3,000 to \$5,000 each, but Byron-Jackson quotes 500 gpm units at about \$8,650; 1,000 gpm units at \$11,250; and 1,500 gpm units at \$16,800, FOB, for replacement purposes. Since Kaiser seems to have approximately \$1,000,000 invested in water system, I have not bothered to make the negligible adjustments for pump costs, but I have used the own unit costs for the 5,000 and 41,000 feet of 12 inch pump lines.

In TABLE I I have computed the cost of pumping 20,400 AF of water from Wells 1, 2 and 3, respectively, in 20 years. Mr. Spaulding used a single value for all three wells, but I am able to obtain a saving by the use of Well 2, for which Kaiser should pay, based on the greater specific capacity and resulting difference in pump lifts.

For my analysis I have assumed that 1,000 gallons per minute can be pumped safely from 16 inch Well 2 or 20 inch Well 3, but that 2 - 16 inch wells to the depth of Well 1 would be needed to obtain

1,000 gpm from the MSD wellsite. Mr. Spaulding recommends twice as many wells in each case, with pumps of half those capacities. Mr. Spaulding has adopted a safety factor which would be desirable, but is still subject to modification as a result of further study. I think the larger pump rates can be used if the wells are not ruined by exceeding those rates as Kaiser seems to have done.

In TABLE II I have given the approximate costs of complete water systems needed to deliver the water independently from the Aqueduct, MSD wellsite, and Well No. 2. TABLE III gives the annual costs, including pumping, maintenance, etc., for the 20-year period. In TABLE IV I have first given the resultant total cost of water for 20 years, and the resultant unit cost per acre-foot. On lines 24 and 25 I have also shown the cost of the same quantity of water if sold to its residents by the City of Twenty-nine Palms, and the resulting residual funds available for water distribution if Kaiser sells water to its employees at the same rate.

We know nothing about the distribution system at the Eagle Mountain Camp, but I believe that Kaiser probably has an investment of about \$500,000. On this basis, Kaiser could sell water at less than the Twenty-nine Palms rate if it could obtain water from the Aqueduct. On the other hand, water from the MSD wellsite might require a sale price at some figure between the Twenty-nine Palms rate and 40% more. The Twenty-nine Palms rate is sufficiently low, as follows, to make even a 40% increase reasonable for the remote supply:

500 cu.ft. per month for	\$2.50	\$ 2.50
next 1500 cu.ft. per month @ 40¢/100 cu.ft.	6.00	6.00
next 8000 cu.ft. per month @ 30¢/100 cu.ft.	24.00	24.00
last 3,690,000 cu.ft. per month @ 20¢/100 cu.ft.		7,380.00
Monthly total (85 acre-feet)		<u>\$7,412.50</u>
Cost per acre-foot		\$ 86.91

In TABLE V I have first shown the long time charge which the United States could make for 20,400 AF in 20 years as \$116,295, based on saving by using Well No. 2 instead of wells on the MSD wellsite, land and well rental, and the cost of water resources investigations to be sure that the withdrawals are not injurious to the well or water resources. In the second half I have shown the 2-year charge at the long time rate, and then deducted 20% of the cost of extending the water system from the MSD wellsite to Well No. 2 to cover removal and loss of salvage value.

In your recent discussions with Mr. Chad F. Calhoun of the Kaiser Steel Corporation you have discussed a 2-year permit with the understanding that Kaiser would explore wellsite possibilities just south of the Monument boundary, based on Mr. Kunkel's statement to me, in January that such an exploration might be profitable. We have now received Mr. Kunkel's memorandum of February 14 advising that he has checked with MWD concerning a well it drilled in 1932 to a depth of 800 feet in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 15, in the approximate area we have had in mind for further exploration. The well was not a success, and he suggested that further test wells to depths of 800 to 1000 feet would cost \$20 per foot or from \$16,000 to \$20,000. There would be considerable risk in the further exploration, but he does not suggest that one or two additional wells at carefully selected sites would not locate a source that would be a suitable alternative to Well No. 2.

In round numbers, TABLES II, III and IV indicate that the Corporation has, or can invest about \$1,000,000 in its water system which includes the MWD wellsite. It has invested at least \$18,000, net, in Well No. 2 without obtaining the use of water, and for which it will now be expected to pay rental on the \$11,500 well if use is granted. It also appears to have invested at least \$78,000, and probably closer to \$100,000 in an installation to obtain water from the MWD Aqueduct for about a year, or a year and a half, but probably about 75% of that investment could be salvaged by transferring the equipment to Well No. 2 or a suitable well which might be drilled in Sec. 15 or 16.

From these observations it does not seem out of line to suggest that the Corporation spend another \$50,000 to attempt to find a well to the south of the Monument. However, since so much has already been spent on exploration and experimentation, only the most reasonable additional explorations should be demanded by this Service. The Corporation doubtless has geologists who could make a much needed investigation before any further drilling is attempted. We should at least request the geological and hydrological study, which the Geological Survey is not authorized to make, before more than a short term use of Well No. 2 is permitted. I think all permit fees might be waived for two years if the Corporation would agree to supply a scientific report on the possibility of obtaining adequate, suitable water from Sec. 15 or 16.

A. van V. Dunn
Chief, Water Resources Section



UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL BUREAU OF SURVEY

WASHINGTON, D. C.

May 29, 1957

IN REPLY REFER TO:

154-1

RECEIVED

JUN-5-57

Memorandum

To: Regional Director, Region Four

From: Chief, Water Resources Section

Subject: 1957 Water Resources Investigations--Death Valley and Joshua Tree

In response to the teletype of May 27 from Mr. Maier, we have today requested the return of the apparent surplus of \$2,750 which was allotted to you. We are reallocating funds to Region Three, and possibly to Region One to reduce their 1958 needs, but those reallocations will only approximately compensate for the \$5,000 cut in 1958 funds which the House Committee has made, and which may, or may not be restored.

A review of your 1957 estimates, and our budget of March 12 will show that the McKinley project has your priority No. 6 with total estimates of \$14,700 for the first six priorities while we were only able to budget \$3,750. While we may be able to increase your quota of 1958 funds, you should review your priorities, cost estimates, and the funds from which they might be paid.

From information now at hand it seems to me that your priority No. 3, Pinto Basin, can be deferred, or reduced in scope if the Kaiser Steel Corporation now has two wells on the MUD wellsite (we have referred the matter of authority for the second well to the Solicitor, but I think it is valid). I also wonder whether part of priorities 1 and 2 cannot be paid from Account 347 as negotiations to clarify water rights of the U.S. and Pirax Company. I also think item 4 for general investigation of water rights (also part of item 2 at Yosemite) can, and perhaps should be deferred until the Solicitor and State Water Rights Board remove their differences. I think the first of these water right investigations should be confined to the historical use of water in the original area including the floor of the valley, which was granted to the State. This should develop most types of cases from which further procedure can be determined.

A. van V. Dunn
Chief, Water Resources Section

Copy to: Superintendent, Death Valley
Superintendent, Joshua Tree
Superintendent, Yosemite
Superintendent, Mt. McKinley



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON 25, D.C.

IN REPLY REFER TO:

154-1

RECEIVED

NATIONAL PARK SERVICE

November 8, 1956

Memorandum

To: Regional Director, Region Four

From: Chief, Water Resources Section

Subject: Classification of Water Sources which may be Tributary
to Lower Colorado River for Federal Intervention in
Arizona vs. California

REG. NO.	
ASSISTANT	
OPERATIONS	
ADMIN.	
COOP. ACT.	
INTER.	
LEGAL	

154-1

The attached sketch has been traced from Drawing FG-6955, with the drainage in ink for emphasis, in reply to the memorandum of October 25 from Mr. Johnston. I have labeled the Pinto Basin in Joshua Tree and the outflow drainage as Chuckwalla Valley, added the Arroyo Seco and Laguna Palo Verde, the Town of Blythe, California, Eagle Mountain Camp of Kaiser Steel Corporation, and most of the parcels of Coachella Valley Indian Reservations. I have also added Cadis and Babay Lakes (dry) to the north.

Mr. Johnston, and Mr. Whitworth in his memorandum of October 8, agree that the hydrologic source maps show the surface drainage as indicated. The defined drainage of Chuckwalla Valley terminates at the arrow, some distance short of the western boundary of the Colorado River Basin which swings around the heads of Laguna Palo Verde and Arroyo Seco. However, Chuckwalla Valley points toward the head of Arroyo Seco, and Mr. Whitworth has suggested that the groundwater, and perhaps some surface flood flows of Chuckwalla Valley, may drain to the Colorado River "near Blythe".

Since the Geological Survey has been making some recent studies in the Pinto Basin and adjacent areas, we are referring the matter to them by the attached memorandum to Mr. Kunkel.

The second point in the memoranda of Messrs. Johnston and Whitworth concerns my statement in the Classification of Sources of Water, which was submitted to the Solicitor with the Assistant Director's memorandum of August 9. I stated that most of Joshua Tree National Monument was in the Salton Sea sub-basin which is only tributary to the Colorado River in Mexico. The statement is generally true as it relates to surface drainage, but there is the possibility that part of the underground water in that sub-basin, including that of Chuckwalla Valley, drains easterly to the Colorado River in the United States. Some of the surface drainage of the northern portion of the Monument also drains toward Cadis and Babay Lakes, whence it may seep easterly toward the Colorado near the Parker Dam site.

Mr. Warner has stated that we are not to claim that groundwater is "tributary in fact" to the Colorado River if the tributary nature is still subject to proof. Our major concern seems to be whether the Geological Survey of California and its political subdivisions present evidence establishing tributaries which have not been recognized up to this date. The Palo Verde Irrigation District might claim that Chuckwalla Valley is tributary to Arroyo Seco or Laguna Palo Verde. The State of California might also claim the use of water from Pinto Basin for the Eagle Mountain Camp or village of the Kaiser Steel Corporation, with a population of about 600, as a municipal use of water which is tributary in fact to the Colorado River. It is not clear to me, either, why all water use in the Salton Sea sub-basin, as shown, is not part of the use of water of the Lower Colorado River whether tributary in Mexico or the United States. That area may have to be added to the Lower Colorado River Basin as California presents its claims.

If Federal claims to Pinto Basin water are to be made, we shall have to have all the wells located at least as to the 40-acre subdivisions of the sections; will have to have descriptions of the water systems, including depth and diameter of well, pump capacity, descriptions of reservoirs, pipelines, developed areas, populations served now and ultimately; and we shall have to have measurement or reliable estimates of the water now used. The descriptions should be supplied at once, for an answer to Interrogatories of California which we are trying to complete.

A. van V. Dunn
Chief, Water Resources Section

Attachment

Copy to: Regional Director, Region Two
Regional Director, Region Three, w/c attachment
Superintendent, Southwestern National Monuments, w/c attachment
Superintendent, Joshua Tree, w/c attachment
Western Office of Design and Construction, w/c attachment

11



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON 25, D. C.

June 30, 1955

IN REPLY REFER TO:

154-1

RECEIVED
NPS, REGION FOUR OFFICE

JUL 5 1955

Memorandum

To: Regional Director, Region Four

From: Chief, Water Resources Section

Subject: Docket No. 1, Kaiser Corporation's Well No. 2, Joshua Tree

	SURNAME	DATE
REG. DIR.		
ASST. R.D.		
OPER.		
ADMIN.		
COOL. ACT.		
INTERP.		
LEGAL		

Handwritten: 8/17/7

With copies of this memorandum, we are distributing skeleton Docket No. 1, to you, the Superintendent and the Western Office of Design and Construction. The docket provides Part I for historical data which now contains the letter of April 8 from the Kaiser Steel Corporation to the Superintendent, and the letter of April 14 from Attorney Jordan, Part II for the proposed special use permit, and Part III for possible water right application, permit and license.

I have designated the well as Pinto No. 2 to suggest the general location. The name can be changed at any time before filing a water right application if you or Mr. King wish to offer another.

It seems probable that a water right application should be filed because the Lewis map implies that the source is an underground basin with limits, but final decision is reserved until we obtain a report on requested study by Mr. Worts of the Geological Survey.

A. van V. Dunn

A. van V. Dunn
Chief, Water Resources Section

Attachment

Copy to: Superintendent, Joshua Tree, with attachment
Western Office of Design and Construction, with attachment

DONALD W. JORDAN
JOHN H. LONERGAN
A. M. SERRIENS

LAW OFFICES
LONERGAN & JORDAN
306 ANTOES S. BULL. BLD.
SAN BERNARDINO, CALIFORNIA
TELEPHONE 8121

April 14, 1955

Samuel A. King, Superintendent
Joshua Tree National Monument
Twentynine Palms, California

*Transmitted with
May's memo of
April 18, 1955*

Re: Pinto Well #2

Dear Mr. King:

I found, on my return to San Bernardino, that the Division of Water Resources bulletin is not adequate to describe water use at Eagle Mountain Mine. Accordingly, I made a photo of the pertinent portion and sent it to Kenneth R. Powell, Kaiser Steel's Superintendent of Raw Materials, for his comment.

I enclose the photo, and quote Mr. Powell's reply as follows:

"As to the use of water for lawns, trees, and shrubs, we are in line with State recommended allowance.

Area to be irrigated at Eagle Mountain	488,000 sq. ft.
Allowance per day (page 26) per 100 sq. ft.	18.5 gals.
Allowance per day gallons	
4880 x 18.5 gals.	88,280 gals.
Gallons per day - use permit	<u>84,500 gals.</u>
	3,780 gals.

The area per house we will irrigate is less than 0.05 acres compared to the State allowance of 0.50 acres per house.

The water for domestic consumption is a different story. We have asked for 150 gals. per person per day compared to a State recommended figure of 50 to 55 gals. per person per day. Our estimate of use and use permit figure is three times that of the recommended figure. How can these figures be reconciled?

1. Eagle Mountain Mine is located in the desert area where the temperatures are extremely high for five to six months out of the year. During this pe-

Samuel A. King
Page 2, April 14, 1955

riod of summer, evaporation type desert coolers operate almost continuously. All houses, dormitories, dining room, and store are equipped with these units. We operate at least 160 of these units which consume:

160 units x 4 gals./hr. x 24 hrs. = 15,350
gals./day

$\frac{15,350 \text{ gpd.}}{575} = 27.6 \text{ gals./person per day}$

On a yearly basis this would average:

$\frac{27.6 \text{ gals./per person}}{2} = 13.8 \text{ gals./person/day}$

1. Because of the dusty nature of the working and living areas, there is an excessive amount of laundry. All the families and many of the men living in the dormitories do their own laundry. An accurate figure for this water consumption is not available, but a fair estimate would be 10 gals. per person per day.

2. Because of the summer heat and year around conditions mentioned above, water consumption for showering and bathing is double the average of normal living. What this would mean in extra water consumption cannot be estimated. A wild guess would be perhaps 50 gals. per person per day.

4. Since 1934 I have been continuously connected with mining operations where water was a problem. During this 20 years of personal experience with per capita water consumption, I have not had a camp operation that was not at least double the States so-called reasonable consumption figure.

Considering the statement in Item 4, plus additional water used in Items 1, 2, and 3, our water consumption per capita could be:

Item 1.	13.8	14 gals.
2.		10
3.		30
4.	50 gals. x 2 =	100
		154 gals

Samuel A. King
Page 3, April 14, 1955

These figures justify our request for 150 gals.
per person per day."

This will give you further written verification to
support your recommendation that the permit be for 60 million
gallons average annual use.

Reynolds, Powell and I recall with great pleasure
our visit to your outstanding headquarters and the interest
and friendship of yourself and your fine assistants.

Yours sincerely


of LONERGAN & JORDAN

DWJ:OW

Enc.

cc: K. B. Powell
Superintendent, Raw Materials
Kaiser Steel Corporation
P. O. Box 217
Fontana, California

TITLE 23 DIVISION OF WATER RESOURCES—STATE ENGINEER 25
PUBLIC WORKS—WATER
 (Register 23, No. 2—7-12-55)

237. Action Upon an Application for an Excessive Amount. An application clearly in excess of the existing capacity of the proposed diversion works or in excess of an amount reasonably necessary for the proposed use will not be approved and shall be reduced before advertisement. In case uncertainty exists respecting the subject, a showing may be required of the applicant.

237. Instances of What Is Considered Reasonably Necessary. The amounts considered reasonably necessary for various uses shall be determined in the following manner:

(a) **Irrigation Use.** (1) In most portions of the central valley of California and elsewhere in the State where similar conditions prevail a duty of one cubic foot per second continuous flow to each 80 acres shall be considered a reasonable headgate duty for ordinary crops. Where there is a greater abundance of water and a heavy transportation loss, or the land to be irrigated is of a porous, sandy or gravelly character a continuous flow allowance of one cubic foot per second to each 80 acres may be considered reasonable. Under other conditions where water supply is less abundant and conditions are favorable to a more economical use a duty of one cubic foot per second to 150 acres may be considered reasonable for ordinary crops. For the irrigation of rice the customary allowance shall be one cubic foot per second continuous flow to each 40 acres of irrigated land.

(2) The equivalent of these continuous flow allowances for one month may be diverted in a lesser time at a greater rate so long as there is no interference with other users, and a clause allowing such rotation will be included in a permit issued for irrigation purposes if the capacity of the diversion works is greater than the continuous flow allowance.

(b) **Domestic Use.** Allowances for domestic use are variable, depending upon the character of the place of use, method of use, character of use and availability of water. The maximum quantities considered reasonable for the respective domestic uses are as follows:

Hotels, Resorts, Motels, Organization Camps, etc.

Fully equipped	50 to 100 gallons per day per person
Sink and flush toilet only	40 gallons per day per person
Sink and shower only	35 gallons per day per person
Sink only	25 gallons per day per person
Outside supply only	15 gallons per day per person
Sink, fountain, etc.	25 gallons per day per person

State Grounds

Depending upon facilities provided, allowances range from 5 gallons per day per person, where grounds only are provided, to 50 gallons per day per person where washstands, showers, sink toilets and showers are provided.

Waters		TITLE 28
(Register 28, No. 2-7-12-32)		
Lawn, Garden, Orchard and Grounds		
Irrigation	18.5 gallons per day per 100 square feet	
Sprinkling to allay dust	7.5 to 10 gallons per day per 100 square feet	
Livestock		
Milk cows	20 gallons per day per head	
Horses	15 gallons per day per head	
Cattle and hogs	2.5 gallons per day per head	
Poultry, rabbits, etc.	0.25 gallons per day per head	
(c) Stock-watering Use. For use for watering commercial livestock, the maximum quantities considered necessary are as follows:		
Range cattle and horses	15 gallons per day per head	
Hogs and goats	2.5 gallons per day per head	
Sheep	1.5 gallons per day per head	
Swine	2.5 gallons per day per head	
Stocking out dairy herd	25 gallons per day per head	
660. Limitation Upon Right Consummated. A right pursuant to an application cannot be consummated to a use of water in excess of the amount or the season of diversion stated in the application as first filed.		
Article 3. Definition of Uses		
661. Domestic Uses. Domestic uses are those common to homes, resorts, motels, organization camps, camp grounds, etc., including the incidental watering of domestic stock for family sustenance and the <u>irrigation of not to exceed one-half acre in lawn, ornamental shrubbery, gardens and truck at any single establishment.</u> Use of water at a camp ground or resort for cooking or sanitary purposes shall be considered a domestic use.		
662. Irrigation Use. Irrigation use includes any application of water to the production of irrigated crops or the maintenance of large areas of lawns, shrubbery, or gardens.		
663. Power Use. Power use includes use for hydroelectric and hydromechanical power and for air blasts and other mechanical devices of like nature.		
664. Municipal Use. Municipal use includes all those uses common to the municipal water supply of a city, town, or other similar population group.		
665. Mining Use. Mining use includes any use wherein the water is applied to mining processes as for hydraulicking, for drilling and on concentrator tables, but not in connection with air blasts, compressors, etc.		
666. Industrial Use. Industrial use includes those many uses wherein the water serves the purposes of commerce, trade or industry.		
667. Recreational Use. Recreational use includes those uses, except the irrigation of golf courses, which are common to a resort or other recreational establishment such as boating, swimming, fishing, etc., where water is directly applied to recreational use. Use of water at a		

KAISER STEEL CORPORATION

KAISER STEEL

P O R T A N D W O R K S
P. O. Box 217 Fontana, California
TeLePhOnE VAlley 2-3311

April 8, 1955

Mr. Samuel A. King
Joshua Tree National Monument
29 Palms, California

Dear Mr. King:

Following is the information you requested for use in preparing an application for a "Use Permit" for water from Pinto Well #2.

1. Estimated amount of water to be used per day for domestic consumption: 86,250 gallons.
2. Present population of Eagle Mountain: 575.
3. Water used per capita: $\frac{86,250}{575} = 150$ gallons.
4. Area of land irrigated for lawns, trees, and shrubs: 488,000 square feet
11.2 acres.
5. Estimated amount of water to be used per day for irrigation purposes: 84,500 gallons.
6. Log of Pinto Well #2, together with pumping tests and water analysis, is attached herewith.

It would be assumed that if the population of Eagle Mountain increased, the amount of water allowed under the permit could be increased accordingly.

In making application for a water "Use Permit" by Kaiser Steel Corporation, it would be with the understanding:

- (a) The water would be only for domestic consumption and irrigation of lawns, trees, and shrubs.
- (b) Water would be made available at the well site in an approved concrete basin for wild life.

2--Mr. Samuel A. King, April 8, 1955

- (c) Area of land covered in the "Use Permit" would serve as right of way for a pipe line and power line to connect Pinto Well #2 to our existing Pinto Well #1 and pumping system.

Should you desire any further information I will be more than glad to secure it for you.

I am very hopeful that the National Park Service will pass favorably upon our final application and want to thank you for your help and generous consideration in this matter.

Very truly yours,

KAISER STEEL CORPORATION



K. B. Powell
Superintendent
Raw Materials

KBP:mac

cc: J. G. Hansen
George B. McMeans
R. C. Heers
C. M. Heath
D. W. Jordan

Encl.

REPORT OF ANALYSIS

Water -- Pinto Well #2

Sampled by Kaiser Steel Corporation

Fontana, California

Date Sampled 12-16-54Date Received 12-16-54

Description	CO ₃	HCO ₃	T.Alk	Cl	pH	Na	Fe	SiO ₂	SO ₄	Mg	Ca	T.Sol	S.Sol	Non CO ₃ Hardness
8 Hours	8	81	89	98	8.00	197	.2	20	241	1.64	16	827	219	0
12 Hours	8	77	85	96	8.26	198	0	20	239	.66	14	589	1	0
16 Hours	8	96	104	115	7.96	241	0	20	292	.76	17	707	0	0
18 Hours	8	77	85	97	8.12	199	0	20	245	.66	14	571	0	0

Samples taken at hourly intervals
as noted during 18 hour pumping test.

LOG OF PINTO WELL #2

From surface to 18', boulders and sand.
" 18' " 54', sand and gravel.
" 54' " 100', conglomerate.
" 100' " 130', sand.
" 130' " 150', sandy clay.
" 150' " 185', sand and gravel (water at 175').
" 185' " 340', sand with streaks of clay.
" 340' " 480', decomposed granite.
" 480' " 575', sandy, gravelly clay with hard ribs of granite.

Total depth of well 575'.
Total amount of casing 532' of 16" stove pipe.
53' of 14" liner in bottom, the 14" liner lapping into the 16" 10'.
Top of perforations 250'.
Bottom of perforations 520'.
Perforated 8 holes to the round 1' apart.
Standing water level from surface 150'.

Drilled by

Freelove Drilling Company

Phoenix, Arizona

for

Kaiser Steel Corporation

Fontana, California

Time: November 1 to
December 2, 1954

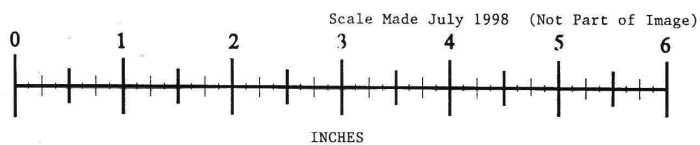
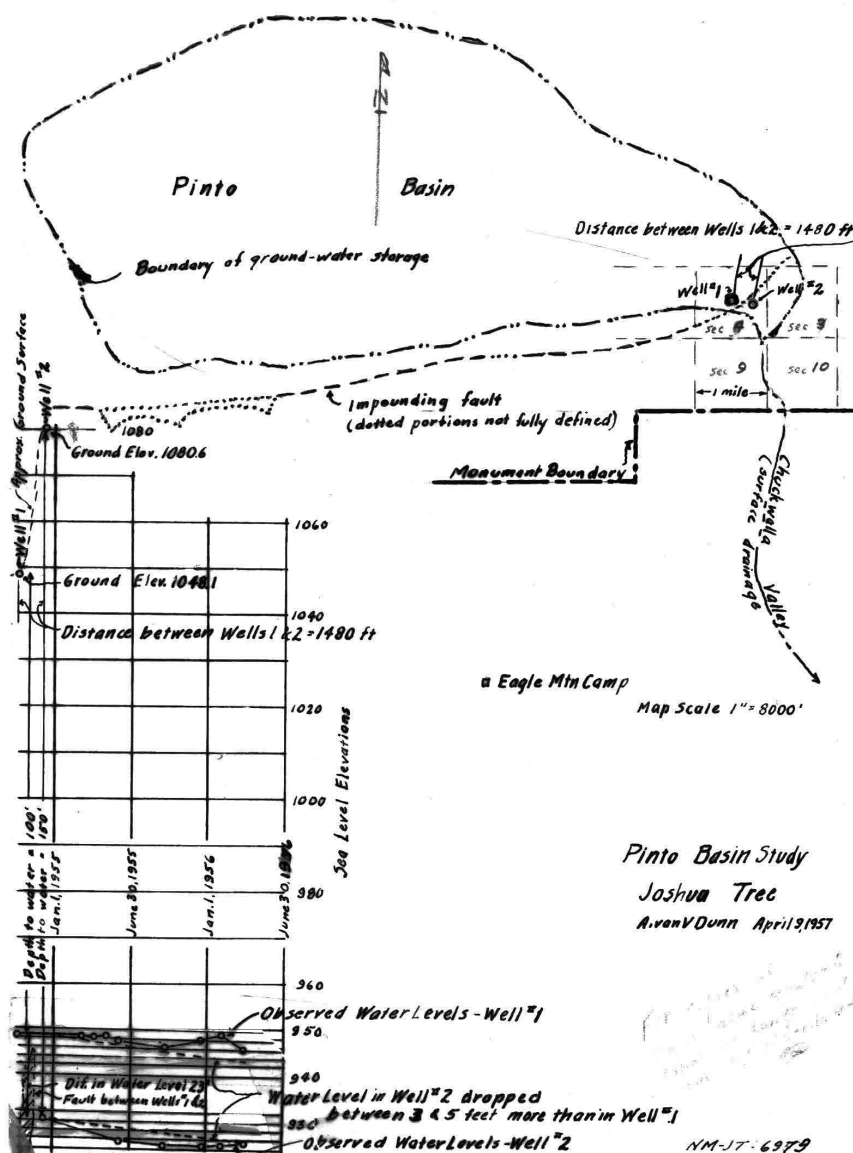
PINTO WELL #2 PUMPING TEST

	Date	Time	G.P.M.	Pumping Level	Draw Down	Static Level	Pump R.P.M.	Remarks on Well Condition
START	12-4-54	1850	500	160	10	150	1000	Water very muddy
		1950	625	164	14	"	1175	" " "
		2050	625	164	14	"	1175	Water slightly clearing
		2150	625	164	14	"	1175	Water clearing
Surged well		2175	870	170	20	"	1300	Water very muddy
		2250	870	170	20	"	1300	Water slightly clearing
Surged well		2300	870	170	20	"	1300	Water very muddy
		2350	870	170	20	"	1300	Water clearing
Surged well		2425	1120	176	26	"	1550	Water clearing
Surged well	12-5-54	2450	1120	176	26	"	1550	Water muddy
		2475	940	171	21	"	1400	Water muddy
		0150	1075	174	24	"	1500	Water clearing
		0250	1075	174	24	"	1500	Water clearing
		0350	1075	174	24	"	1500	Water clearing
		0450	1075	174	24	"	1500	Water almost clear
		0550	1075	174	24	"	1500	Water clear
		0650	1075	174	24	"	1500	Water clear
		0750	1075	174	24	"	1500	Water clear
		0850	1075	174	24	"	1500	Water clear
		0950	1435	182	32	"	1750	Water clear
		1050	1480	183	33	"	1800	Water clear
		1150	1480	183	33	"	1800	Water clear
		1250	1480	183	33	"	1800	Water clear
Finished test		1350	1480	183	33	"	1800	Water clear

Standing water level below surface of ground 150"
 Yield of well (G.P.M. per foot of drawdown) 40"
 Average amount of water in G.P.M. pumped 833"
 Total amount pumped in 18 hours - gallons 899,640
 Total amount pumped in acre feet 4.6
 Test pump set at 300'

Type of Equipment

Make of pump A. O. Smith (Smithway)
 Size of bowls 10"
 Oil lubricated shaft
 Power Unit-Twin 6 cylinder GMC Diesel
 Gearhead - Amarillo Right Angle 3:1



Number of Documents in Docket	87		
Documents Dated from	6/15/1941	to	12/2/1994
Docket Compiled:	4/19/2011		