



## THE BONNEVILLE OUTRAGE

BY RICH TAYLOR

Picture if you will, a lake, Lake Tahoe, maybe, only twice the size. Or Salt Lake or maybe Lake Champlain. You are in the middle. It's absolutely silent. Twenty miles away in every direction are mountains, tan and shimmering in the fading light of dawn. In between, there is nothing. Nothing except an endless stretch of dark blue water, flat enough to see the curvature of the earth, with that rippling windblown surface that lake-bound sail boaters search out. Above is the hazy, pale blue, cloudless bowl of the sky. Now all this pictured firmly in mind. . . make it a negative. The misty air becomes clear as Waterford. The distant mountains turn dark brown and brooding. The sky becomes the inside of an eggshell of purest blue. And the water? Ah. Like Lot's wife, it turns to salt. It keeps its ripples, it even keeps its quality of reflection. The mountains, reflected in the surface, float on the horizon. The surface remains the same . . . except . . . now it is white. A pure, table salt white that assaults your eyes with its unrelenting glare and nearly unbearable heat. And always there are the mountains and the space and the silence. Standing in the center, you hear nothing. You can stand out there and you will be the only living thing within a radius of 20 miles. It's not like being in a forest surrounded by trees and little birds and squirrels—not that kind of alone—but alone with nothing but the salt. Mountains and sky for company. And the sun glaring off everything. It is one of the most inhospitable and, at the same time, most seductive locations in the world.

Bonneville Salt Flats are total experience that cannot be duplicated anywhere else. The Grand Canyon is unique, but there are other river-cut rock canyons. Niagara Falls is imposing, but it's still just a waterfall like any other. There is no other place quite like Bonneville in this country. Lake Eyre in the Australian outback is as close as anything, and there is a valley somewhere in the Peruvian Andes formed the same way, but there is only one Bonneville Salt Flats.

The Salt is dependent for its existence on an irreplaceable deposit of minerals created millennia ago. Like any dry lake bed, of which there are many in the world, there was once water where the salt now resides. Before a major prehistoric upheaval cut them apart. Bonneville was connected with the Great Salt Lake, some 100 miles distant. Together they formed a great saline inland sea. For this reason, the amount of Salt at Bonneville is finite and can never be renewed. Annually, however, the Salt resurfaces itself, using the same salt over and over. This is what makes Bonneville unique. During the winter, the rainfall collects on the Salt and raises the water table above the surface. This creates a concentrated salt brine which evaporates from the sun's heat in the summer—redepositing the same white minerals. The salt settles into a perfectly

compacted and leveled surface marred only by wave-like cracks formed by shrinkage when it dries.

The majority of the Salt Flats belongs to the Federal government, while a smaller portion is owned by the State of Utah. The Department of the Interior, Bureau of Land Management, which is responsible for the Federal government's portion of the Salt, is represented by Robert D. Neilson, State Director for Utah. He has, as far as it affects the fate of the Salt, relinquished his power through disuse to the Division of Parks and Recreation of the State of Utah, which owns the remainder of the Salt. The director of this organization is Harold J. Tippetts, and he, along with the Democratic Governor of Utah, Calvin L. Rampton, is directly responsible for what is shamefully happening to the Bonneville Salt Flats.



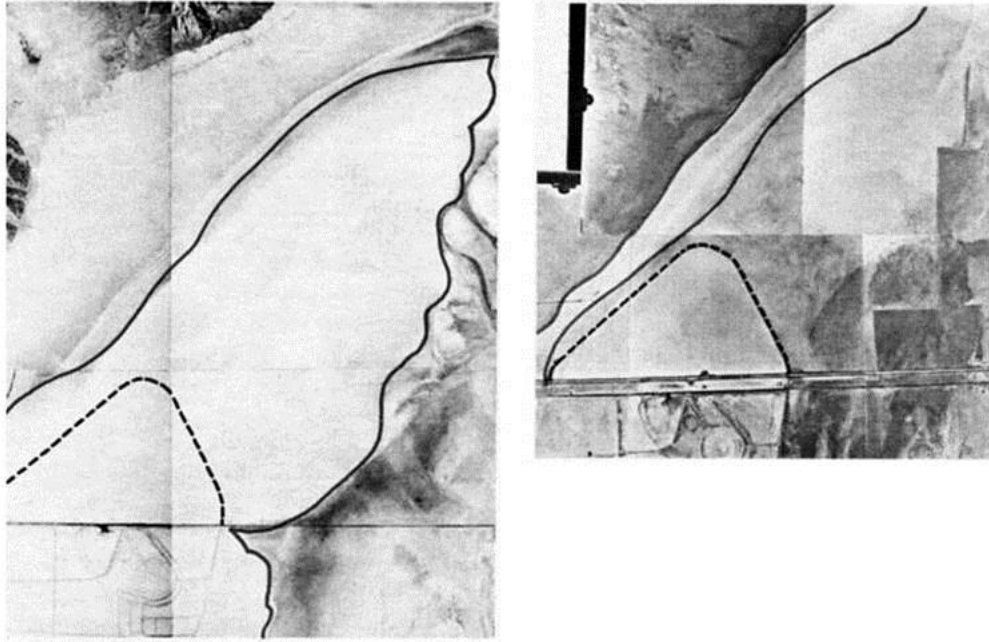
Kaiser Aluminum and Chemical Corporation has been at Bonneville since 1940, and it has been pumping away the salt deposits through pipes like this at an ever accelerating pace, which, by Kaiser's own admission, will soon destroy its livelihood.

What is happening is very simple. The Salt Flats are being drained away to no purpose. Along with the table salt (sodium chloride) that comprises the majority of the saline deposits at Bonneville, there is also a concentration of potash (potassium carbonate) and magnesium. Surprisingly, the sodium chloride is of no economic value—it is the other two minerals which have triggered the rape. During World War I there was a shortage of potash in the U.S. In 1916 a small mineral operation was begun at Bonneville, but closed after the war. Another refining plant was begun in the Thirties and changed hands twice before World War II when the Kaiser Aluminum and Chemical Corporation bought it in 1940.

The scale of the salt removal operations had never been particularly extensive, and the nibbling at the edges of the Salt Flats done by the various operations seemed negligible in the face of the apparently inexhaustible field of salt. Kaiser changed all that. In a successful attempt to increase its productivity, Kaiser began digging trenches along the edge of the Salt Flats in order to drain the brine off more efficiently. Later it dug the now infamous Twenty-Five Mile Trench which encloses a large triangular portion of the southern corner of the Salt that Kaiser obtained when it purchased the refining plant. Kaiser also leases a major portion of the southeast side of the Salt from the State of Utah, to which it pays royalties for the privilege of extracting minerals "pursuant to the public good." The present manager of the successful Kaiser Chemicals operation at Bonneville is M.W. Lallman. He says. "We employ 55 people. We're the second largest business in Wendover, Utah outside of the State Line Casino. That makes us the second largest for a radius of about 100 miles. In the summer, lots of people go to work for the motels and tourist services, but in the winter we're the only thing here. Kaiser came out here 32 years ago for the magnesium, but they never really exploited that. Most of our business is in potash. Every winter when the rains flood the Flats, the mineral deposits are floated up into a surface saline brine that's saturated with about 25% sodium chloride, about 6% potassium carbonate and about 2% magnesium. We pump off the brine in channels and let the salt evaporate out in our pond system dug at the edge of the Salt. Then we process the rest in our on-site refinery to get a 97% pure potash. It's used to make fertilizer. After we evaporate out the salt, we just leave it in the ponds. Every 10 to 12 years we fill up the pond system and have to start a new one." The first to notice that the Salt was deteriorating were racers from the Southern California Timing Association who annually come for Speed Week. Some have been coming to Bonneville every summer for 24 years, and they have a valid comparative basis for their complaint that the salt surface is shrinking, that it is getting thinner and that it seems to be less pure in color than it used to be. They complained to the State of Utah for years before anything was done. Eventually a token action was taken to keep the racers quiet. In 1967, and again in 1968, the Utah Geological and Mineralogical Survey of the University of Utah in Salt Lake City was hired by the Division of Parks and Recreation to study the problem. The results of these studies were contained in a letter from Director Harold J. Tippetts to "Environmentalists and/or Racing Enthusiasts." It said, "The report is that there appears to be no deterioration of the Salt surface. . . pumping was discontinued at the Kaiser Chemicals plant in one ditch in 1966, and the other in 1970."

This year, Tippetts made an effort to help the racers with Speed Week, and the Salt surface was prepared by the Utah Highway Department, Rangers from the Utah Parks and Recreation Division served as guards and course workers. Governor Rampton even appeared, dropping down from the sky in a Huey helicopter on Wednesday of Speed Week. Rampton promised, "The State of Utah has no intention of losing the Bonneville Salt Flats . . . they have an unparalleled record of use as a high speed race track. The State of Utah intends to preserve the Bonneville Salt Flats as an interpretive site, and continue, encourage and enhance the racing activity that occurs there annually."

Many of the racers were convinced that all their honest effort had succeeded in preserving the Salt Flats. Jerry Jones is the President of the Southern California Timing Association which sanctions Speed Week. He says, "We talked to Governor Rampton, we've seen the University studies, and you can go look at the steel poles that are sunk in the Salt out by the start. They measure the depth of the salt, and they haven't changed in five years. It's still as deep as it ever was. It just migrates within the basin from area to area in different years."



Mark Dees, a California lawyer, uses these two U.S. Geological Survey aerial photographs to state his case against Kaiser. The left photo was taken in 1953, the right in 1970. In both, the dotted line indicates the Twenty-Five Mile Trench of Kaiser, while the solid line indicates the outer edge of the shrinking Salt Flats.

Jones' complacent attitude is not shared by all the racers. Mark Dees, an Englewood, California lawyer, is president of the prestigious 200 M.P.H. Club. He has become something of a monomaniac on the condition of the Salt, but he also has factual information to support his case. One of the most telling pieces of evidence is a pair of aerial photographs taken by the United States Geological Survey. One was taken in 1953 as part of Project 121, and the other in 1970 as part of project GS-UCMV. As Dees says, "These photos clearly show that the incredible actinic whiteness of 1953 has given way in 1970 to a blotchy area of reduced size, indicating that the thickness of the salt has been materially reduced and the Flats themselves are being 'pulled in'. On-site observation makes this obvious to anyone who was there in the old days. How could it be otherwise, when Kaiser pumps away thousands of tons of salt solution every year."

One of those who was there in the old days is Clarke Cagle, a successful Bonneville racer and tough defender of the Salt. "Jerry Jones," he says, "doesn't know what the hell he's talking about. Twenty years ago, the salt was deep and white. You'd get your chin burned from the reflection. Now it is thin and it is brown. There are patches of plain dirt coming through. The last four years. I haven't even worn

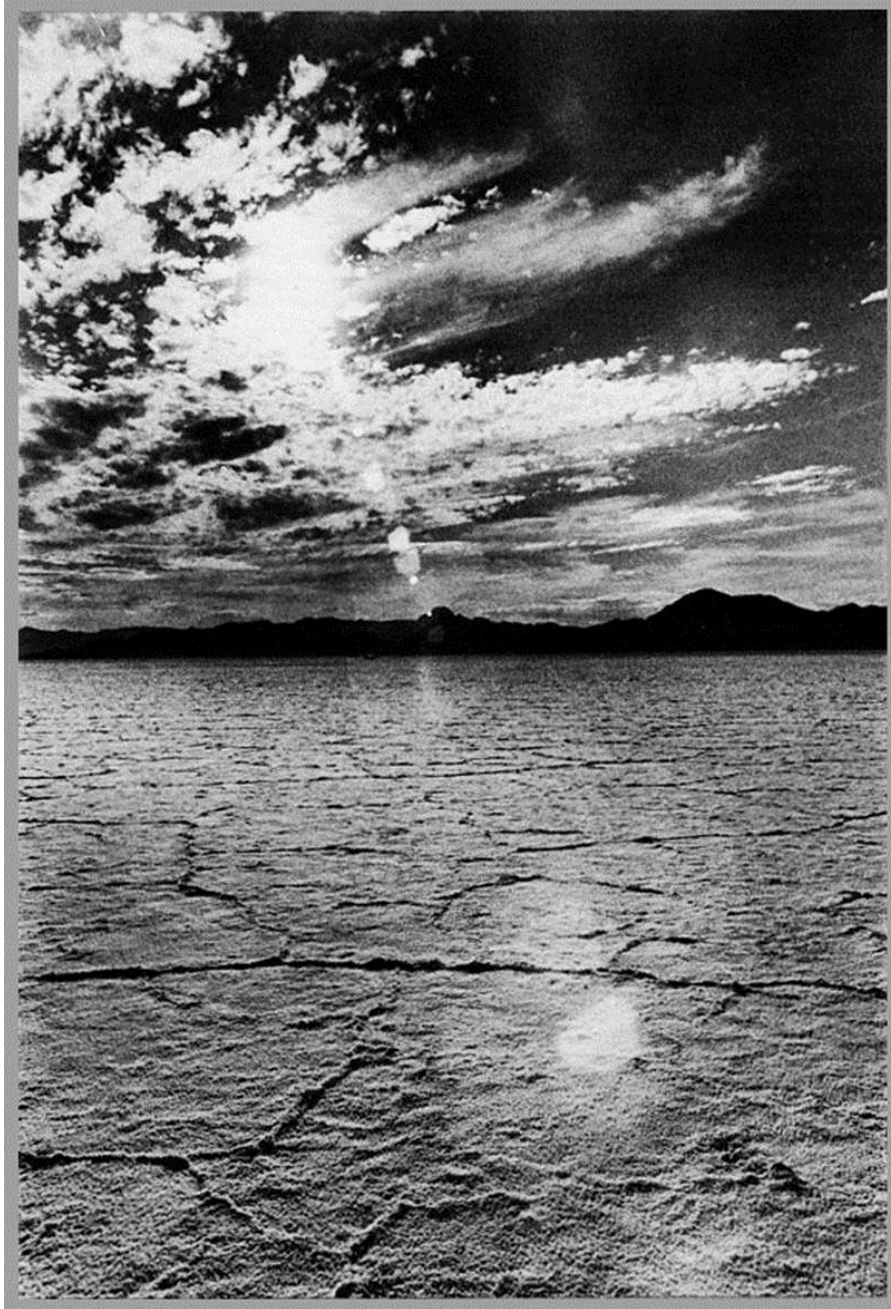
sunglasses. All I have is my own opinion, but it seems like if you continue to take salt from salt, you'll end up with no salt.”

Harold Tippetts has tried to give the impression that he has put stringent controls on Kaiser Chemicals and that salt is no longer being taken from salt. He has either been deceived or he is trying to deceive. In order to get to the heart of the matter, I visited the Kaiser Chemicals plant with manager Bill Lallman. He was very courteous, and he indicted himself with such unbelievable candor that no prosecutor is necessary. It would only detract from the defendant's own case against himself. John Christy wrote an article in Rod and Custom two years ago, in which he speculated upon the amount of salt being removed from Bonneville and set it at 24,000 tons a year. Had he been energetic enough to actually visit the Kaiser Chemicals plant and talk with Lallman his argument, subsequently picked up by the racers, might have been considerably stronger. This is what Lallman told me while we talked in his second floor office in the Kaiser plant overlooking the vast evaporative pond system through huge picture windows:

“Someone from the State of Utah did come by and talk to us last year, but no controls have been instituted on our operations. We now process more minerals than we ever did. Nothing has been said about our lease rights or anything like that. We ship about one million tons of potash on a good year, but in order to get that we're putting three million tons of salt into our pond system and out of the ecological system. The mill goes 24 hours a day year round. We are depleting the Salt. We know that. Kaiser had a geologist do a study and he gave us 25 to 30 years before the Salt Flats are completely gone. But say, 10 or 15 years ago, we still shipped one million tons of potash a year. On the Flats, the white surface salt is nearly pure sodium chloride. Underneath is a kind of gray clay with our minerals in it. The salt is about three feet deep at the basin center, and then feathers up to mud at the edges of the oval salt area. Our actual potash processing isn't hurting the hot rodders at all. It's the white sodium chloride salt that we put into our pond system and leave there that will eventually deplete the Flats. Our geologists tell me that we are entering a 12 to 15 year dry climatic cycle—which is good for us. Our new pond system is 20% larger and we're looking for a better production record for the next 10 years than ever before. At this rate, in 20 years we will probably have mined ourselves right out of business. What will be left will be a soft, grey mud flat. It will be both impassable and unusable. We will have completely depleted the Salt.”

Bonneville is a natural wonder unique in all the world—that deserves to be saved. It is a great symbol of America, and to let it be destroyed in order to provide pocket money for a chemical company is criminal. The Salt is irreplaceable. It can't be redeposited. To continue to deplete it is a wantonly criminal act. The State of Utah owns part of it, the Federal government owns part of it. They should call the shots on the Salt—not Kaiser Chemicals. But they, and particularly Harold J. Tippetts, have abdicated their responsibility. Although Governor Rampton and Director Tippetts have promised yet another study on the matter, nothing is being done. The Salt is being eroded at the rate of three million tons a year to no purpose. It is not sold, used or given away, it merely sits in unusable ponds. Twenty years from now the public will demand to know what happened to their National Landmark. The answer will be that it was pumped

away . . . for nothing. Like the man said, if you continue to take salt from salt, you'll end up with no salt.



“We are depleting the Salt. We know that. Kaiser had a geologist do a study, and he gave us 25 to 30 years at the most before the Salt Flats are completely gone.”

-Bill Lallman, Kaiser Chemicals