'Kaiser quarries sand without water runoff'



Unquarried land

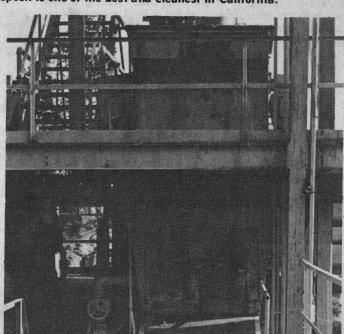
The Kaiser Company's sand quarry operation (the bare hill in the middle of the picture) covers only 50 to 75 acres of the total 300 acre property off the old Mt. Hermon road. Three settling ponds (one of which is on the right in the picture) are used to hold runoff water pumped from the area of actual sand quarry operations. Kaiser officials say no runoff water leaves the property.



Excavating

The tracks in the hill above were made by self-loading scrapers and trap bulldozers, the heavy equipment used by the Kaiser Company to move the sand to conveyor belts that transport the unprocessed sand to the treatment plant. Kaiser officials say the sand deposit is one of the best and cleanest in California.





Providing sand to building contractors from Santa Rosa to Salinas, the Henry J. Kaiser Company last year sold over 900,000 tons of sand from their quarry off the old Mt. Hermon road near Scotts Valley.

Saying the bulk of their business is with contractors in San Francisco, Oakland, and Santa Clara, Kaiser officials estimate the sales of concrete, mortar, and plaster sands from the quarry amounted to over \$1,000,000.

"We get a clear white sand from our quarry because this area has some the the cleanest deposits of sand in California," Acting Plant Manager Bill Berger says.

Kaiser quarries sand from the Santa Margarita Formation, which was formed by ocean deposits between ten and 25 million years ago in the Miocene Age. According to a California Division of Mines and Geology survey, the Santa Margarita Formation crops out over a nine mile long area between Felton and Santa Cruz, ranges from two to three miles in width, and extends to a depth of approximately 200 feet.

Other companies presently quarrying sand from the Santa Margartia Formation are: Lonestar Industries (formerly Pacific Cement and Aggregates), one mile northeast of Felton; and Santa Cruz Aggregates, on Lockhart Gulch road.

The Kaiser Company started quarrying at the present location in October of 1960, after moving from the quarry on Zayante road next to the Trout Farm Inn. Berger estimates Kaiser will use the old Mt. Hermon road quarry for another 30 years. Kaiser officials presently are preparing more definitive plans for use and rehabilitation of the property as required by the county quarry ordinance passed by the board of supervisors in August of this year.

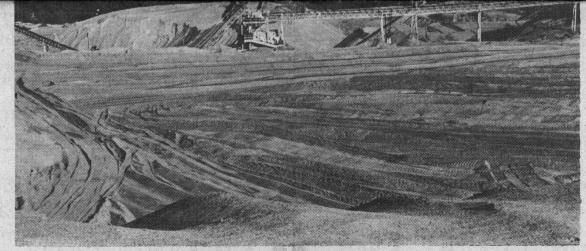
supervisors in August of this year.
Scotts Valley City Manager Friend Stone recently announced an agreement with Kaiser to dispose of treated sewage effluent on a portion of the Kaiser property that has been fully excavated. Stone also recently proposed taking over the Kaiser property for a city park and sewage effluent disposal area as quarry operations are phased out.

Kaiser officials are to meet with Stone early in January to begin working out a formal agreement for future use of the land.

In addition to land designated for actual quarry operations, Kaiser owns land along Mt. Hermon road (Scotts Valley Glass Company and adjacent land) and behind Lockewood lane homes that serve as a buffer zone to the area of quarry operations. Kaiser also holds a lease on the excavated quarry at the intersection of Lockhart Gulch road and Mt. Hermon road.

Berger estimates the sand processing plant when operating, uses ten million gallons of water per day. Runoff water caught in basins and pumped to holding ponds in the rear of the property is supplemented with water from two wells on the property in providing enough water for processing sand at the treatment plant.

"No water ever leaves our property. During heavy rainy periods, we work 24 hours a day to channel drainwater to the catch basins pumping the water to the holding ponds. In the nine years I have been here, we've never had any major problems with water leaving this property," Berger says.



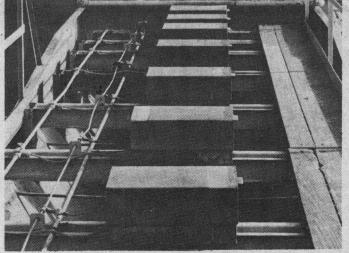
Screening

Fed by sand loaded conveyor belts, the treatment plant (in the center above) washes the sand and separates it into various grades. Kaiser officials say the plant has a present production capacity of 450 tons of sand per hour.



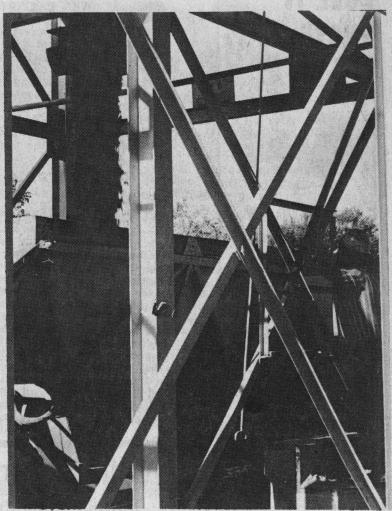
Storage

The major products produced by the Kaiser Company's Mt. Hermon plant are concrete, plaster, and mortar sands, which are stored in piles for drying near the treatment plant. When truck loading bins (on the extreme right in the picture above) get low, front loading scoops push the sand into holes between storage piles from where an underground conveyor belt transports the sand to the loading bins.



Processing plant

Sand entering the treatment plant is mixed with water and run over screens, to take out large particles, before entering the settling basins (shown in the bottom of the above picture). The whirling action of the water in the settling basins forces the sand through screens in the bottom of the basins, separating the fine from the coarse sands.



Shipping

Trucks from as far away as Santa Rosa come to the Mt. Hermon plant for sand. The two section trucks hold 25 tons of sand total weight. Kaiser officials say sand produced here provides the San Francisco Bay Area with much of the sand used for concrete, mortar, and plaster.