

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

MEMORANDUM REPORT

SUBJECT: Dredged Areas

LOCATION: Josephine County--Greenback Mining District. Sections 4, 5, 8, & 9; T 34s; R 6w.

Along Grave Creek from 1500' above the mouth of Mackin Gulch and extending down stream to approximately 1000' above Leland. A strip 300-1000 feet wide, $1\frac{1}{2}$ miles in length and totalling an estimated 115 acres was dredged.

HISTORY: The Rogue River Gold Company began dredging just up stream from Leland, September 25, 1935. An old channel of Grave Creek south of the present stream was dredged with a bucket type dredge being used. The operation was discontinued in 1939 when work up stream reached a point at which the gravels extended so deep that it was impossible to clean bedrock.

GENERAL: This dredged area is possibly the most extensive in Josephine County and is one of the few which has involved any appreciable acreage of agricultural land.

The area dredged (see attached sketch map) included the following soil types, the descriptions of which were taken from the "Soil Survey of Josephine County, Oregon" published by the U. S. Department of Agriculture (1923). Percentage figures shown represent an estimate by the writer of the percentage of the total acreage dredged covered by a particular soil type prior to dredging. The estimate is based on the soils map accompanying the U. S. Department of Agriculture publication mentioned above:

15%---"Hugo Silt Loam---The surface soil of the Hugo silt loam consists typically of about 10 inches of brown, friable silt loam containing a small quantity of small iron--cemented pellets and usually a larger proportion of flat, angular fragments of slate and hard shale. The subsoil, to a depth of 36 inches, is a brown or slightly reddish-brown, compact silt loam grading into the parent rock through a mass of rock fragments containing very little fine material. The bedrock consists of shale, slate, or sandstone and occurs at various depths within the 6 foot section, the average depth probably being less than 4 feet."

GENERAL: (con't)---

45%---"Corning Gravelly Clay Loam---The surface soil of the Corning gravelly clay loam, is its typical development, consists of 12 inches of a dull-red clay loam containing 20 to 40 per cent of mixed water-worn gravel. The subsoil, to a depth of many feet, is a red, compact gravelly clay loam or clay. The surface soil generally contains a large quantity of rusty brown iron-cemented pellets about one-half the size of a pea, and in places accumulation of ferruginous material has caused a slight cementation in the subsoil. Locally some of the material included with this type has a light loamy texture, and is somewhat more friable than typical."

"Certain areas have a large content of boulders ranging from 6 inches to 1 foot or more in diameter.-----, Usually the stones occur only on the surface, but in places they are irregularly distributed throughout both soil and subsoil. For the most part they consist of hard, resistant rocks, in which quartzite, granite, and slate predominate. In places, as along Rough and Ready Creek in the southwestern part of the area surveyed, the boulders are so numerous as to make the land non-agricultural; in other places they interfere more or less with cultivation."

15%---"Columbia Fine Sandy Loam, Gravelly Phase---The surface soil of the Columbia fine sandy loam, gravelly phase, consist typically of 10 to 18 inches of light-brown or grayish-brown to brown friable sandy loam, containing a quantity of water worn gravel representing a variety of rocks. The soil is low in content of organic matter, and the structure is rather loose and porous. In the lower lying areas representing the more recent alluvial deposits the subsoil consists of lighter colored deposits of loose gravel and cobblestones, containing very little interstitial material, which extend to a depth of several feet. The gravel is of mixed origin, and although granitic and quartzitic rock predominate, every formation in the region is represented in the material."

"In the more elevated areas representing older and somewhat modified alluvial deposits the subsoil, to many feet in depth, consists of stratified deposits of water worn gravel and cobblestones firmly embedded in light brown loam. In places the structure of the subsoil and substratum is loose and porous, but more commonly the under lying material consists of very compact or partly cemented layers in which gravel and cobblestones constitute 60 to 75 per cent of the total mass.-----.

25%---"Columbia Fine Sandy Loam, Stony Phase---in places the material of the Columbia series contains a large quantity

GENERAL: (con't) ---

of loose, water work boulders 6 inches to 1 foot or more in diameter.----- The fine material consists mainly of grayish-brown loam or fine sandy loam, but in places the phase consists of deep windrows of loose, round gravel and rocks with very little fine material."

"The phase is confined mainly to low terraces a few feet above overflow. Drainage is excessive and the high content of stones renders the greater part of it nonagricultural."

Cleared land of the Corning gravelly clay loam soil type located adjacent of the dredged area apparently is being utilized mainly as grazing land.

Adjacent land of the Hugo silt loam soil type is covered by timber or brush and is not being utilized as farmland.

Land of the Columbia fine sandy loam soil, both gravelly and stony soil types adjacent to the dredged area apparently is being utilized as grazing land or for general farm crops. Much of the stony soil type is suitable only as grazing land.

Only a small portion of the settling pond area is being farmed. The remainder is the site of a sawmill operation with the settling ponds being utilized as log ponds for the mill.

Insofar as can be determined no regrading has been attempted. There is no growth on the tailings other than occasional small trees and brush.

Report by; H. D. Wolfe
Date: May 5, 1950

Grave Creek Placer:

Vicinity of town of placer.

American Smelting & Refining drilled

14 holes 35'-45' in depth

2 - duds and the others average

6¢ - 13¢

Slate bed rock.

A.E. Hepburn has assay map and
log holes given to him by president
of company.