U. S. COAST AND GEODETIC SURVEY.

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Superintendent.

State: Oregon.

DESCRIPTIVE REPORT.
Topographic Sheet No. 1776.

LOCALITY:
Coast of Oregon
From Yaquina Head to Cascade Head

1887.

CHIEF OF PARTY:
Cleveland Rockwell
Descriptive Report

to accompany Original sheet of plan table
reconnaissance No. 1, extending from
Yaqunna Head to Cascade Head, Coast of
Oregon—May and June 1887.

(Cleveland Rockwell, Observer.)

The general course of the Coast shown upon this sheet is a nearly straight line bearing north by west ( magistrate ) and is very broken and Complex. The country is very generally hilly and in height distinguished in two transverse strata of the Coast Range of mountains called Cape Foulweather and Cascade Head, and in a lower point named Yaqunna Head. Between the two great Cape long sand beaches extend, which lie along at the foot of broken cliffs of moderate elevation. The continuity of these long beaches is interrupted by Tillamook Bay and Salwood River and a lake of considerable size called "Devil lake, lies among the hills south of Salwood river. The country is generally covered with forest.
though the high peaks of the mountains back of the area represented on the sheet have been cut over by fire and show a bristling array of dead and whitened stumps among which a second growth of young trees displays a dark growth of green. In many places a dense growth of alder has taken the place of the original evergreen trees. Yaquina Head, Cape Perilweather, and Cascade Head are composed of very dark basaltic rock, capped in many places with bright red and yellow sandstones, and the cliffy back of the sand benches of sandstones, clay slates and beds of sand in situ, all appearing very light in color. The breakers are flat and when the sea is high, four or five lines of breakers break upon the shore and in times of storms a stranded ship would not long withstand the shock of the waves.

From the entrance of Yaquina Bay to Yaquina Heads there is generally a wide sandy beach backed by low bluffs and the land rises from the shore to a moderate elevation and is partly woodland and partly burned over and
Covered with a poor thin sandy soil, and a thick growth of wild brush and rhododendron. Yaguania Head is composed of a light tuff or basaltic breccia or conglomerate, probably running into one or two zones, which are highly magnetic, causing deflection of the magnetic needle. The whole head is bare and covered with grass and fir. Immediately north of the Head a wide low beach extends for five miles to the beginning of Cape Deulucathon. Some bluffs occur at intervals, broken by numerous small streams. The land rises to the hills about two miles back, with a moderate slope, and for the most part densely timbered, though evidence of fire may be seen, even from a distance. The bluffs between Yaguania Head and Cape Deulucathon are generally of sandstone, whitish or yellow color, very friable. Under the sandstone are beds of slates, filled with numerous fossils of fossils, shells, and other species of pebbly limestone. The beach is composed of pebbles and basalt and in numerous localities black sand is found in considerable quantities.
Compounds largely of magnetic iron ore. No lists were made of this sand to discover gold or platinum. Frequent ledges of rocks protrude through the sand beaches. Low water is defined on the shore by a single dotted line for the sand, and by the usual topographical sign for rocks and ledges. The sand stones and bits of sand are everywhere above the slates and shales and are capped by a deposit of drift and gravel; they are subject to very rapid erosion. The sea during the extreme high tides of December lashed the foot of these Cliffs as is shown by the height to which drift wood has been driven into the mouths of the numerous small gulfs and coves. About a mile north of Yaquina head and half a mile back from the shore is an isolated butte or point, about 230 feet high. Covered with trees. The cliff and bluffs along the shore show numerous springs and gulfs of thin water. About a mile north of Yaquina head and half a mile off shore an isolated ledge of rocks appears at low water. Otter rock is about a mile south of the south end of Cape Perce, and rather more than a
Mile off shore: it is about 300 feet high and a low ridge of rock lies about half a mile south and a ridge of
rocks extends west to the north. Cape Foulweather
prevents between beaches a few of about seven
miles to the ocean. Of shore from Yaquina Pt. like a
lofty ridge of land running W. 12 and S. E. The sea face
of the Cape [except in places] bare of trees and covered
with grass and ferns upon the steep slopes, which reach
to an altitude of 500 or 300 feet. The extreme summit
of the ridge seen from Yaquina Head is about 134
miles
back from the shore and about 300 feet high and to the
East of this summit the land falls rapidly away to
200 or 300 feet elevation. The bare patch on the S.W.
side of this summit would be a prominent land
mark from the ocean. One great cliff of precip-
itation basalt about 430 feet high occurs in the face
of this Cape. (All heights given in this report are
reckoned above average high water mark.)

The north end of the beach running from Yaquina
Pt. is terminated by a bluff of sandstone rock, the
Commencement of Cape Foulweather, which is about
300 feet high and very red and yellow in color and
covered with trees to the edge. The forest growth is
Composed of spruce and hemlock, the latter tree growing often in groups on the flat bare boulders or tables. Scourby willows and alders are found along the streams. The basaltic formations are always covered with a rich deep soil and where it has been burned over on southern exposures or naturally destitute of trees, produces a very abundant growth of grasses and clover, and a rank growth of fern. The forests are generally full grown. A scrubby bull pine also grows on the thin poor soil on the sandstones where also flourishes the rhododendron. The undergrowth in the spruce forests is dense and impenetrable without having the road open with the axe or hatchet and is composed mostly of salal (genus rhododendron) and salmonberry bushes which reach 10 or 12 feet high with stalks of corresponding thickness and obliquity. The salal is perennials in character. The spruce trees are from 100 to 200 feet high withbole in many instances 6 to 8 feet through. The shore line of the Cape is very irregular and broken by numerous small bays
and soon eroded by the sea, such erosions having taken place where the sandstone strata lie en-\n\nby the basaltic breize. The basalt of Cape Foulweather are composed almost wholly of conglomerate of large and small material, cemented very firmly together in bands or strata inclined generally at a great angle from the horizontal. From the north side of the Cape a sand beach again extends for 5½ miles to the entrance of Siltly Bay. This beach is generally composed of soft and coarse sand much washed up by the sea. A low bluff of soft yellowish sand stones, much subject to erosion, nowhere over 5 feet high and generally not more than 15 or 20 feet back of this beach. The bluff ends at a point opposite the south end of Siltly Bay and from here to the entrance of the Bay, a narrow peninsula of sand dunes is found, generally covered with very short saltbush scrub and clover. A spring of excellent pure water may be found on the Bay side of this spit about halfway down its length. The bank slopes very gradually
back from the bluff and the poor quality of the soil is indicated by the scrubby growth of bull pine and saltbush brush. The difference in the quality of the soil between the land formed by the disintegration of the basaltic breccia and that lying on the sandstone before mentioned is very distinctly marked by the character of the vegetation. Siltly Bay is about 2 1/2 miles long by one mile wide, and at low water a very large part of the area is bare sand and mud flats. The entrance to the bay is at the extreme northern end close under the bluff. The Siltly River enters the bay near the north-east corner, emerging from between high steep hills densely covered with timber. Bath of the Bay in every direction towards the east are high and rounded mount-
tains, some of which are wooded and others covered with bush and trees and bare. Two other smaller streams, Cuttie Schooner Creek and Drift Creek enter the Bay on the east side. Considerable areas of tide marsh fringes the bay near the mouth of the Siltly river and also near the entrance of the two smaller streams, and some of these
This land can be improved by dikes at great expense. The Siletz river is a very tortuous stream and navigable at low water only by canoes. In a direct line it is only 14 miles from the Bay to the Agency, but about 36 or 37 miles by the river. The Creek from near Yaguirna Point to the mouth of Salmon river is an Indian reservation. Consequently, none of the natural resources of the Country have been developed by the whites. The bay is quite a resort for the Agency Indians who come down to fish. Large numbers of salmon are said to frequent the three streams during the spawning season and the bay abounds with salt water fish such as flounder, perch, and smelt, and with crabs and clams, and great number of the Phoebe or rock oyster can be dug out of the soft rocks and slate along the Coast. There are no roads between Yaguirna Head and Siletz Bay, and no trail from the Bay to the Agency, the only means of travel being by canoes on the Siletz river. The only route of travel between Yaguirna Bay and Siletz Bay is by the sea beach and by a
very bad Indian trail along the face of Cape Flattery. This trail is scarcely travelled at all and is often very difficult to find and hard to trace. Bears are very numerous. The Bay appears to have a very fair entrance at high water, probably at least to pick up water at low tide would be developed on the bar by a bar survey. At low water it appears to break all the way across the bar. From Sility Bay a beach extends again for a distance of 6.5 miles to the precipitons rock, just south of Salmon River. This beach is wide and of much harder sand than that below Sility Bay. Numerous roots and ledges occur though none far from the low water line. The extreme western cliffs reach up to the peak of the bluff which are from 50 to 80 feet high of very friable sandstones and beds of loose sand in place which streams down the cliffs in miniature cascades when the winds are strong. All these sandstone strata are nearly horizontal, and undisturbed by upheavals and are of very recent origin. Interspersed through these cliffs are successive strata of ancient tidal sands.
or log must containing great numbers of pro-
strate trunks and roots in place of larger spars
there, compressed by the weight of superlying
beds of sand, but very little fossilized and in
an excellent state of preservation. Similar
standing stumps were observed protruding
through the sand at low water, and it was no
struck that the trees had declined to
load such fossilized wood. This wood was
perfectly preserved its grain and texture and
burn on a fire with scarcely any flame leaving
a reddish iron tinted ash and with a slight
burning odor. Devils Lake, a body of
fresh water lying in irregular depressions
among the hills between Sitka Bay and Sal-
mom River is about 2½ miles long by ½ mile
with an outlet through the beach at the Sou-
thern West Corner. The elevation of the surface
of the lake above high water mark is about 8
or 10 feet and a small body of fresh water
occupies the area near the outlet. Very large
trout may be caught in this lake by troll
ing and large number of salmon were
into the lake during the spawning seasons; and are caught and dried by the Indians.
There is much open land around the shores of this lake on the ocean side and toward the salmon river and some of the most civilized Indians have very good homes and are engaged in farming, cattle stock raising.
A short trek from Devil's lake the land rises in a succession of broken hills and ridges to the highest elevations of the Coast range of mountains. The bench from Silly Bay is interrupted just below the mouth of salmon river by very precipitous rocks at the end of range of hills of over 3000 feet elevation. These rocks are of basaltic breccia near the water surmounted by a capping of very friable reddish rock, continually crumbling away and are penetrated in various diagonal directions by dike of harder material. These rocks would no doubt form a very distinguishing land mark at a considerable distance of sea.
An isolated rock 74 feet high two weeks of this precipitous point at about a third of a mile
from the shore. Salmon river enters the ocean just north of this point and immediately at the foot of Cascade Head. A group of 3 rocks lies at the mouth of this stream which are 20, 50 and 76 feet high. Salmon river can be forded at low tide, the entrance in very narrow and rocky. Large areas of tidal flat lie along this stream and those portions on the south side of the river are very favourably situated for reclamation by dikes or weirs. Considerable expense. The run of salmon in this river during the spawning season is said to be large. The south side of Cape Cascade Head rises immediately from the banks of the river to an elevation of 150 feet or more, which is probably as high at any part of the range of hills forming the Cape. This south side is almost entirely bare of trees and covered with fine grass clover and fern. The slopes are very steep but covered with an excellent soil. From the backbend of this ridge to the northwest the country is one unbroken, dense forest of Aspen and Cedar and Sitka Spruce.
The larch, a very handsome tree, is found on the higher ridges. The undergrowth in the forest is dense and luxurious. Composed largely of the tallal, dogwood, elder, elder, salmon berry and red huckleberry, with firs and brooke, under all. A fair wagon road runs up Salmon river, and crosses the open hills north west of Devils lake to the ocean beach. This road affords the only means of communication with the Willamette Valley through the Grande Ronde Valley. The Indians, have also made a small piece of road, shown on the Sketch, over the hill near the north side of Neltz Bay to avoid a rocky point on the beach below.

From the Ocean the higher currents of the Coast range would be seen over Neltz Bay and the Country around Devils lake and up the gorge of Salmon River. The Indian names pertaining to the localities mentioned, I refer to be found upon the Topographical Sketch.

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