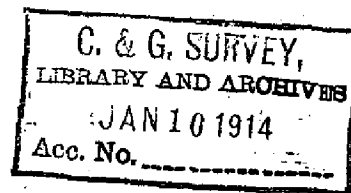




3421



Department of Commerce and Labor
COAST AND GEODETIC SURVEY

Superintendent.

State: _____

DESCRIPTIVE REPORT.

Top. _____ Sheet No. *3421*

LOCALITY:

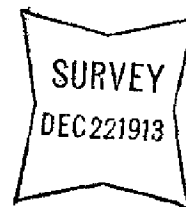
191

CHIEF OF PARTY:

11-1046

3421

TOPOGRAPHIC SHEET ~~3421~~



Assistant in Charge

INISHIL BAY, COOK INLET, S W ALASKA

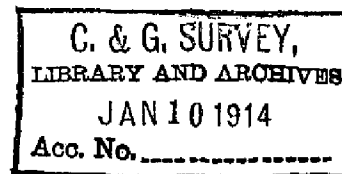
Party Steamer McArthur,

C.G. Quillian, Assistant, Comdg.

June 20 , 1913 to August 5 , 1913.

Harry Leypoldt, Aid Topographer

L/B, Campbell, Aid Topographer



Scale 1 to 20 000

Descriptive Report to accompany Topographic Sheet #

This sheet is a topographic survey, on 1 to 20,000 scale, of Iniskin Bay, an arm of Cook Inlet; starting to westward at point where 1908 survey of Iliamna Bay stopped and going to eastward to west entrance of Cil Bay from which point the 40 000 sheet continues to a Slant, on west shore of Cook Inlet about two miles south of southern entrance to Chinitna ^{Bay} Point, the point where the 1911 survey stopped. The control is tertiary triangulation in Iniskin Bay and a few signals in the main scheme for the seasons work. This survey was started on a blank sheet, no data being available at the time for making a projection. Local triangulation was done in June and the triangulation stations plotted on the sheet by distances.

The coast line from Cil Bay to Iniskin Bay is rocky and rugged, varying from almost perpendicular to the general slope of Mt. Fomeroy. Small shingle beaches occur in the heads of most of the indentations in the coast line, but at high water the majority of these cover, leaving a rock bound shore throughout. At low water, the stretch at head of bight between eBob and eJane has a sand beach extending off about 50 meters and is about $\frac{1}{2}$ mile long.

The shore line of Iniskin Bay is different on the west shore from that on the east shore, the hills on the east shore up to Right Arm being the result of upheaval, the formation consisting of boulders and conglomerate strata, the boulders being of conglomerate. The west shore is volcanic in formation and shows traces of glacial erosion, this being more apparent around a Knoll which is situated on a rounded knoll peculiar to glacial action. Imbedded in the conglomerate are shell fish of various kinds,

the mussel shells being soild sandstone when pried out of the rock. On the west shore, beginning about $2\frac{1}{2}$ miles in from the entrance of bay, an extensive mud flat makes out, the offshore end following the course of the deepest channel in the bay. In the upper part of the bay the flat is grass covered and traversed by a number of sloughs, many of which dry at low water.

The flat has numerous groups of boulders resting in the mud and varying in height from 1 foot to six feet. The largest group is at Δ Boulder but scattered boulders occur all along this shore the more prominent ones being located by a rod reading and nearby ones sketched. Some of them are covered at high water, others closer to the shore, do not cover. The flat was composed of a grayish brown mud with no vegetation on the lower part but the upper end was grass covered, the muddy water leaving a coating of mud on the grass ~~growing~~ below higher high water line. The high water line was not very distinctive in the northern part of the bay just before reaching the river.

On the east shore, the flat begins in bight $\frac{1}{2}$ mile south of Δ South Base but is not as wide as the west shore flat. It differs also in the fact that below Right Arm there are no boulders, the only rock formation being low reefs extending above the level of the mud not more than 2 feet. To the northward of Right Arm the formation is similar to that on the west shore. On the upper part of the flat near the river are grass covered hummocks about 18" diameter and 6" high. They resemble boulders but are nothing but grass clinging to a small stone. I did not locate any of them on the sheet, for they are bare most of the time, covering only on the highest waters.

The sky line on the two sides of the bay is very different in the southern part, the east shore being low with the exception of Mt. Pomeroy. Mt. Pomeroy is the result of upheaval and has an even slope from the outside shore and then falls off sharply inshore, being a succession ~~eff~~ of bluffs some of which are almost perpendicular near the top, while lower down the slope is even but more steep than the outside. To the northward of Mt. Pomeroy is a succession of low hills, alder and fir covered. To the northward of Right Arm the glacial knolls are again met with and farther back, the volcanic formation in Mt. Eleanor and Mt. Roscoe. Mt. Eleanor has a well defined peak and then falls off gradually except for a number of ridges which gives the peak a scalloped appearance. Mt. Roscoe is very similar to Mt. Eleanor but has a reddish colored sub peak to the eastward of it. Mt. Eleanor is the highest peak in the bay. Mt. Iliamna is visible to the northward on clear days.

The skyline on the west shore is very jagged, all the peaks being distinctive. The 1200 ft. divide about 3 miles in from entrance is also distinctive. Sugarloaf has a pyramidal appearance from the southward, having an even slope, but when abreast of it two peaks show.

To the northeast of Right Arm is a range of hills, one end being shown on sheet, which appears as a succession of teat shaped peaks gradually getting higher and probably reaching to Chinitna Bay. They are alder covered throughout with a scattering of Fir in the valley which leads to Chinitna Bay. The slopes appear regular and all the peaks are distinctive..

A peak similar to Sugarloaf is situated in the head of the valley of the river and the river has ~~its source somewhere in this~~

in this vicinity but on which side of this peak I did not determine because the river becomes too shallow to float the cutter at low water beyond the limits of the survey.

The islands in this vicinity are nearly all along the south coast and the entrance to the bay, excepting two small islands in the upper part of the bay, situated on the mud flat at half tide about one mile below a Fir. They are rectangular in appearance with perpendicular sides. The division between the two is not more than 8 to 10 meters wide so that it looks like one island from most directions. They are 30 feet high, flat topped and grass covered.

About one mile N.E. of signal Point there is a group of five small islands, hardly large enough to call islands, not being over 10 meters in diameter. They are close inshore, mushroom shaped and grass covered. The mushroom shape is due to sea action on the bases of the islands, the formation being conglomerate and yielding easily to the action of the sea.

In the center of the entrance to the bay is a group of five rocks or islands called the "Mushrooms". They are not so much mushroom shaped as the aforementioned rocks but are far more prominent. They are irregular in shape, but being composed of conglomerate, the sea action has eroded the base so that they are larger in cross section at the top than at the bottom. They are grass covered and all about 15 feet high. This is an estimated height from set ups at the base of a number of them. A similar mushroom is located about a quarter mile N.E. of Scott Island, the largest one at the entrance of the bay.

Scott Island lies at the entrance to the bay and closer to

Named by this party after Antarctic Explorer

the eastern shore. It is approximately round in shape ,flat topped,grass covered on the western part and fir covered on the eastern end.The shore line is cliff formation on the north with a strip of shingle beach at low water,while the remainder is sloping,rocky and irregular. The formation is conglomerate. On the southwest side are three mushroom rocks connected at ~~hi~~ low water but independent at high water The height is 48 feet ~~at~~ the grass covered portion while the trees are not over 40 feet high.

* Vert Island is a small island $\frac{1}{4}$ mile south of Scott Island. It is irregular in shape,one diameter being about twice the other. The inshore(northern) side is cliff formation while the southern side is broken,rocky shore line with a slope of about 1--4. It is flat topped,grass covered and 35 feet high.At low water a conglomerate rock in two sections,bare 4 feet at high tide,is connected with this island. This rock is about 200 meters to the eastward.

Iniskin Island lies about 1 mile south of east tangent to entrance to Iniskin Bay. It is 250 meters long and half as wide, rectangular in shape,grass covered and flat topped. The northern shore is a perpendicular cliff with a small,rocky beach at low water The outside is rocky,irregular ,sloping and has a number of rocks close inshore which makes landing treacherous in a slight swell and impossible in a heavy sea. The skyline from the southward is practically a straight line but from the eastward it is sloping from inshore to outside, being 50 feet high on the out inshore side and about 5 feet above high water on the outside. The grass is 5 feet high in most places and the surface of the island is rocky large , loose rocks making hard going to the top.

* Named by this party "Green" (French)

Pomeroy Island lies $1\frac{1}{2}$ miles to westward of Oil Bay, and one mile off shore. It is irregular in shape, $\frac{1}{4}$ mile long and about half as wide. It is grass covered throughout except for a group of Fir trees at the western extremity. The eastern end and for 200 meters is 50 feet high from whence it slopes to 10 feet at the wooded end. The northern side is steep cliff at eastern end but the western end is similar to the southern shore which is the exposed part and resembles the Outside shore of Iniskin Island, although the reef at low water extends off shore farther, barring about 60 meters.

Landing places on the outside coast are few and poor and should not be attempted in bad weather. In Iniskin Bay, landing may be made anywhere but, if landing on the shore where there is a mud flat, land on the high water and then take the boat off into the stream, for the flat bares rapidly after the tide begins to ebb.

Watering places are common for small boats, but for vessels that cannot leave the deepest channel, the best watering place is the small fall between o Arch and o Pin, just northward of Knoll Pt. The stream has a dry weather flow of 100 gals. per minute. It is fed by- from a small pond back of knoll to the southward, which in turn is supplied by one stream in dry weather and innumerable ones in rainy weather. A whaleboat can be placed under the fall at any stage of the tide except the L.L.W. when a V shaped trough about 20 feet long is necessary to carry the water to the boat.

There are a number of cabins scattered throughout the bay, in all probability built during the days of the oil excitement in this vicinity. They are no longer in good condition with the exception of the one near the creek at the southern end of Sugarloaf Peak,

and it was evidently a laboratory of some kind from the glassware and tubing still there.

There is a wagon trail still in fair condition from the creek just south of Δ South Base to the camp of the Oil company in Oil Bay. It follows the creek to the divide, a height of about 300 feet and then winds around the hill and over the grass covered flat at the head of Oil Bay. The corduroy work over creek and small gullies has fallen into decay and the alder has encroached somewhat on the roadway, but in the main the trail is easy to follow and would not be difficult to replace to its former condition.

An old scow, still in fair condition, is on the beach in the small bight where the camp was pitched, about $\frac{1}{2}$ mile north of Δ North Base. There was an old launch there all summer, the engine of which is in the store house in Oil Bay, but a party from Seldovia made off with it in latter part of August.

Iniskin River enters the bay in the northern part. It is 150 meters wide at the mouth and gradually narrows as you proceed north. It is winding flowing between grass covered banks and mud flats. It is navigable for the launch "Delta", drawing 3 feet, as far as the survey was carried, but not beyond. The tide comes as far as end of survey, the water being slightly brackish on the flood tide but fresh on the ebb. Numerous sloughs branch off, the largest one entering the valley at north end of Sugarloaf and it does not bare at low water. Most of the remaining sloughs have three or four feet of water at low water, but are then not more than 3 or 4 feet wide, but at high water are from 10 to 30 meters wide. The mud flat in the northern part of the bay is covered with bear tracks but I never saw any. The flat off Δ Ledge is the breeding place for sea lions in early summer.

The vegetation in this vicinity is variable, scattered groups of fir, cottonwood, alder and spruce, interspersed with underbrush forming the characteristic growth. Blueberry and salmonberry are prevalent throughout the bay. The flat at the head of the bay is grass covered. The sheet shows the vegetation by the symbols given in the general directions.

The points in the shore line on the east shore are conspicuous. Point at \odot Point is about 25 feet high, fir covered and has a shingle beach to the southward. Peat point, the southern entrance to Right Arm is flat, but at the end there is a conical mound of loose rock and earth. There are no prominent points above Right Arm except point near \odot Fir, which is 30 feet high, grass covered and has a group of five fir trees near it.

On the west shore, the knoll at Δ Knoll has the appearance of a point when entering the bay, but there is very little change in the shoreline. The shore here is an almost vertical cliff for 50 feet and then a steep slope. The knoll is grass and alder covered, the alders not extending above 150 ft. elevation.

Shore line at \triangle Boulder is cliff to height of 100 ft., alder and fir covered. The two foregoing points form a range for entering the bay to avoid the shallow water.

Respectfully submitted
Harry Leopoldt
and, C. J. L.