

State of Alaska
 Department of Fish and Game
 Nomination for Waters
 Important to Anadromous Species

1986
 Year of Revision

Approved

Name of Waterway OMIKVZINAK RIVER

AWC# of Waterway 331-00-10080

AWC Volume & Number 5

USGS Quad NUATAK C-4, NUATAK D-3

Addition X Correction _____
 Deletion _____ Change _____

Change to X Atlas
X Catalog
 _____ Both

86 454

<u>M. Pitt</u>	<u>12-31-85</u>
Regional Supervisor	Date
<u>OK</u> <u>SJS</u>	<u>1/2/86</u>
<u>Tom Rucan</u>	<u>1-2-86</u>

Drafted DEPT. OF
 FISH & GAME
 DEC 31 1985
 REGION II
 HABITAT DIVISION

Species	Date(s) Observed	Spawning	Rearing	Migration
Arctic Char	8-24-84	X		X

Comments: Provide any clarifying information, including number of fish observed, location of fish survey data, etc.

SEE HIGHLIGHTED PORTIONS OF DATES & MILE
REPORT ATTACHED (D+M, 1984)
Extend 331-00-10080 and renumber upper portion #2086

Attach a copy of a map showing location of mouth and upper points of each species, specific stream reaches identified for spawning or rearing, locations of barriers, such as falls. Attach a copy of the fish survey data, if available.

Name of Observer (please print) _____

Date: _____ Signature: _____

Address: _____

JOB REPORT

1984 FISH SURVEY ALONG THE PROPOSED
COMINCO ALASKA INC. ACCESS ROUTE

October 12, 1984

Dames & Moore



5438-078-20

made on the main Omikviorok River and on Dud Creek (Dames & Moore, unpublished data).

This report compiles and includes information from those earlier surveys along with results from the 1984 surveys.

2.0 MATERIALS AND METHODS

The primary method used for sampling fish in 1984 was a Smith-Root Type VII electroshocker fished in the pulsed DC mode. In 1982 and 1983 work, a Type XI electroshocker was used. In all 3 years, aerial stream surveys for spawning fish were conducted from helicopters. All streams with reasonable potential for spawning by anadromous fish were flown for several miles both up and downstream during late August or early September of at least one of the study years.

At all crossings surveyed, the nature of the stream habitat was qualitatively described and the stream then electroshocked for up to 100 meters up and downstream. Lesser distances were sampled in streams with moderate to high densities of fish. Fork length was measured on all salmonids captured and total length was recorded for cottids.

3.0 RESULTS AND DISCUSSION

3.1 GENERAL

A total of 17 potential stream crossings was surveyed between August 21 and 24, 1984. Of these, 14 were found to contain fish in the immediate vicinity of the crossing. In addition, the Lake Fork of the Omikviorok and the upper North Fork of Evaingiknuk Creek had fish downstream of the crossing, although none was taken at the crossing. Arctic char (Salvelinus alpinus) was the predominant species taken, followed by the sculpin (Cottus cognatus). Surprisingly, no juvenile Arctic grayling (Thymallus arcticus)

cobble bed with moderate gradient. Fish habitat is good with low fish densities. Char juveniles of a single size class (96-110 mm) were the only fish captured.

Crossing No. 9 Main Fork - Omikviorok

The surveyed crossing of the Main Fork (SE 1/4, Sec. 21, T27N, R22W) lies immediately below the confluence of the Winter and Summer forks, but upstream of the confluence of the much smaller Lake Fork (see crossing No. 10 below). At the surveyed centerline the flows of the Winter and Summer forks are largely separated by a central island with a high water crossover above the island. On August 23, 1984, the area showed clear signs of very recent bed and channel instability, including bank erosion on the south side and on the central island, channel degrading and aggrading around the island, and large lumps of willow and tundra deposited in the channel from freshly cut banks. Broad gravel bars separate and border the two channels. Bed materials in the active floodplain range from silty sand to boulders; however, in the flowing channels, coarse gravel to boulders predominate. On August 17, 1982, combined flow of the Winter and Summer forks was measured at 143 cfs.

A wide diversity of aquatic habitats is present from deep pools and runs, to shallow runs, cut banks, root wads, and riffles. Fish density was relatively low and char fry (51-65 mm), the dominant group, appeared to be less robust than those from streams to the south. No other char size classes were taken in 1984, but a yearling (96 mm) was taken in 1982 sampling. This reach serves as a rearing area for juvenile anadromous char from spawning areas 2-5 miles upstream on the Winter Fork. On August 24, 1984, some 50 anadromous spawners were present in this reach which extends upstream to a major fork in Sec. 20, T27N, R21W. This fork is approximately at the upper extremity of a major aufeis area that may extend downstream to near the crossing. No spawners were seen in the Summer Fork which was reportedly dry in places during parts of the summer of 1984.

Crossing No. 10 Lake Fork - Omikviorok River (Mud Lake Creek)

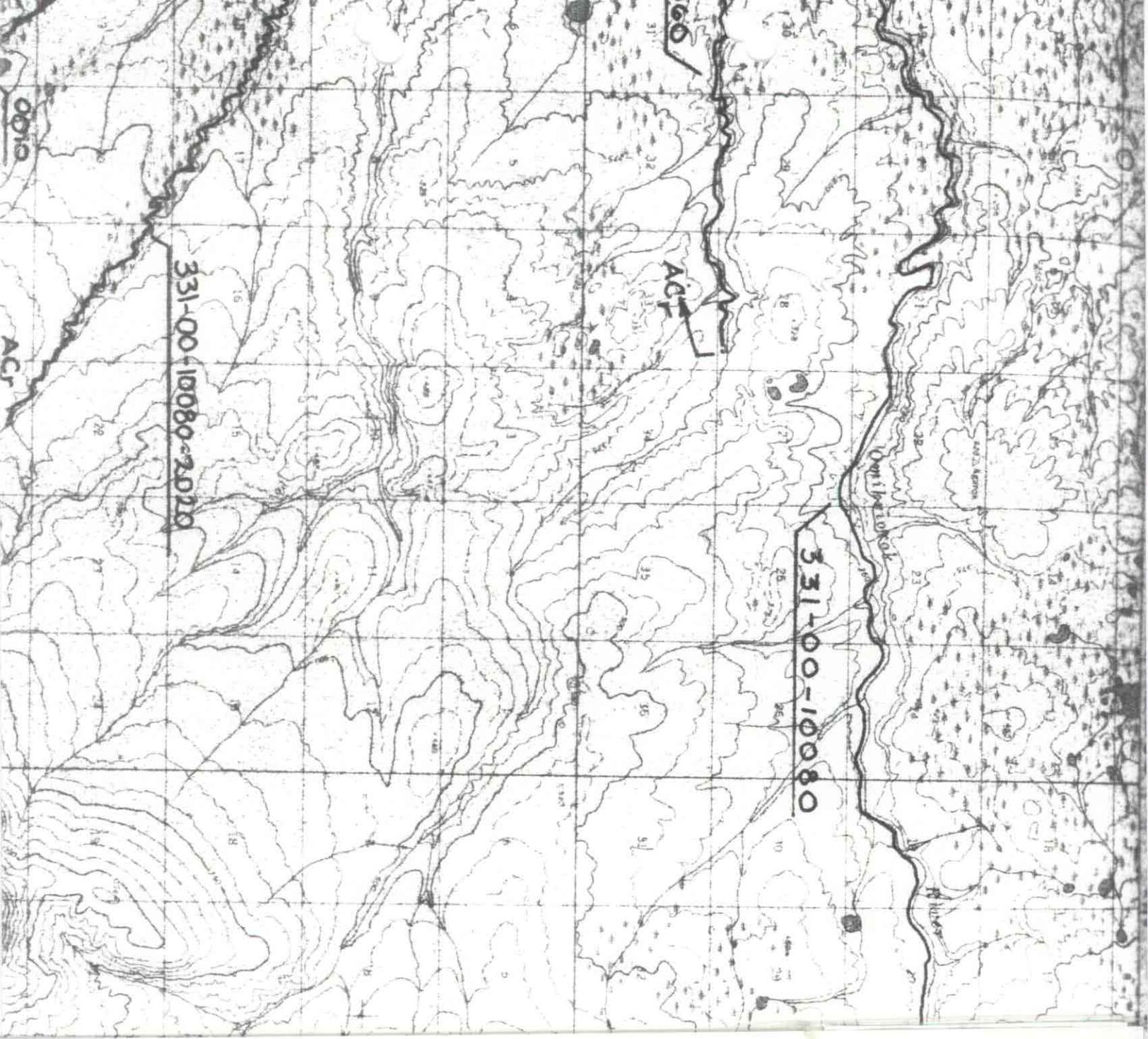
This small tributary joins the Omikviorok River just downstream of the main crossing (No.9). The stream drains from a wetland area on the east side of Mud Lake. At the surveyed crossing (NW 1/4, Sec. 22, T27N, R22W), the stream was flowing some 10-12 cfs on August 23, 1984. The channel is "semi-beaded" with deep wide low-velocity pools separated by shallow narrow high-velocity chutes. Bed materials are cobbles and boulders in the chutes and pools with some sand and silt accumulations in the pools. The creek flows in an incised ravine with willow and grass banks. The channel appears very stable.

Habitat is good for larger fish, and grayling adults were reported by surveyors earlier in the summer. No fish were taken in angling or electroshocking on August 23, 1984, possibly because of the lack of juvenile habitat and the difficulty of sampling the deep pools. A shallow upstream area (SE corner, Sec. 15) was also electroshocked and produced moderate densities of char fry (55-60 mm) as well as a sculpin (74 mm). Thus, this must be regarded as a fish stream and may be used for rearing by anadromous fry from Winter Fork spawning.

3.4 TUTAK CREEK SYSTEM

Tutak Creek is the major tributary of the Wulik River that enters downstream of Ikalukrok Creek. The system drains much of the northwest slope of the Mulgrave Hills and a broad valley between the hills and a lower ridge paralleling Ikalukrok Creek. Two major tributaries of Tutak Creek that will be crossed by the road have been termed Left Tak and Right Tak (south and north, respectively, of the main stem). Prior to these studies, fish use was little known, although char fry were known to be abundant in the upper mainstem (P. Driver, personal communication).

In September, 1982, Dames & Moore (1983a) reported numerous large schools of 1-ocean char juveniles in the reach below the Right Tak confluence. Moderate to high densities of char fry (53-75 mm) and grayling fry



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