## REVISION NOTICE TABLE

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| DATE | DESCRIPTION OF REVISION |
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## PROCESSING NOTES

Cruise: 1961-015

Agency: PBS - POG

Location: Prince Rupert & Contiguous Waters

Project: Pollution Monitoring

Chief Scientist: Waldichuk M.

Platform: Ehkoli

Date: 15 September 1961- 18 September 1961

Digitized by : Jackie Waldrun – April 2022

Prepared for archive by: Germaine Gatien – May 2022

# INSTRUMENT SUMMARY

Water samples were taken with Fjarlie bottles (Fjarlie, 1953) at the standard depths of 2, 4, 6, 10, 15, 20, 30, 50, 70, 100, 150, 200 and 250 metres or to the maximum depth the bottom would allow. Surface samples were collected with a bucket. Temperatures were obtained, when possible, with paired reversing thermometers at each depth. Surface temperatures were measured in a bucket with a standard 0-30 C surface thermometer. These data were supplemented by continuous temperature records with depth using a bathythermograph. At each station, a Secchi disc reading was taken as a measure of water transparency.

# SUMMARY OF QUALITY AND CONCERNS

There was an obvious error in one longitude record in the original document. but a plot accompanying the data makes it clear what the value should be (event #3).

Dissolved oxygen data are included in 4 channels. The original data were in mg/L; they were converted to mL/L and umol/L. Also included are surface saturation data from the original document.

Alkalinity data did not include units but based on the detailed description of the analysis and the values the data are in millieq/L, which is the same as millimol/L. The units are listed in the files as mmol/L.

Event numbers were assigned in the order they appear in the report, and are not necessarily in order of time occupied.

# PROCESSING SUMMARY

##### Digitization

The data in this file originate from document:

Reference: Waldichuk, M. , J. R. Markert and J. H. Meikle 1968. Physical and Chemical Oceanographic Data from the West Coast of Vancouver Island and the Northern British Columbia Coast, 1957-1967. Volume II, Fisher Channel - Cousins Inlet, Douglas Channel - Kitimat Arm and Prince Rupert Harbour and its Contiguous Waters. https://waves-vagues.dfo-mpo.gc.ca/Library/52055v2.pdf.

The data were digitized by J. Waldrun and saved in individual spreadsheets for each cruise.

Depths were in metres. All times were in PST.

Dissolved Oxygen units were given in mg/L. To get the data in mL/L it was multiplied by 0.7 as stated in the document and confirmed in ICES Data Tools (<https://www.ices.dk/data/tools/Pages/Unit-conversions.aspx>).

Header comments were prepared based on comments in the original document. Further information can be found in the document.

Dr. Lisa Miller was consulted on the units for the alkalinity data and based on the method description and the values said the units were millieq/L, which is the same as millimol/L. Thus, correcting them to the units that are generally used now (micromol/kg), would involve the density and a factor of 1000.

Dr. Miller found the values given were in line with expectations for seawater.

The units were entered as mmol/L.

##### Preparation for Archive

A 6-line header was added to the spreadsheet.

Adjustments had to be made to formats of time

The year had to be changed to a 4-digit version.

Latitude and longitude needed to be changed to decimal format.

Longitude was changed to negative values.

Then a series of steps were taken:

* The 6-line header file was converted to IOS Header format. Most header information was transferred to the headers of the converted files in this process, except that start time cannot be added that way. Time and Date channels were included in the converted files.
* CLEAN was run to create Start Time from date and time channels.
* Add Time Channel was run to add 8 hours to the start time.
* Change Units was run to obtain DO in mass units.
* REORDER was run to get the DO channels together and remove Date and Time channels.
* Header Edit was run to add header comments and remove end time.

##### Quality Checks

A track plot was produced and 1 longitude reading looked wrong. For station P-3 the longitude clearly should be 130 21.85 rather than 129 21.85. A map in the document confirms this. Longitude was corrected.

T-S plots showed one slightly unstable feature, but it did not look significant. Profile plots were examined and no obvious problems were found though the profiles were complex.

Standards check pointed out some formats are non-standard, but the standards fit the time the data were gathered.

A header check were prepared and no problems found.

The cross-reference list was produced and is shown below.



