

## PALIMMN Data Sheet *Example*

Lake Name: *Smith Lake, Fairbanks, Alaska* Survey date: *01/01/2010*

GPS coordinates: *64° 51' 55" N 147° 52' 02" W (easily identified on Google Earth)*

Observers: *Katey Walter Anthony*

Institution: *University of Alaska Fairbanks*

Transect #	<i>Transect 1</i>
Transect length	<i>50 m</i>
Location on lake	<i>~150 m off of steep eroding lake shore; transect parallel to shore</i>
Percentage with white ice (you cannot see through)	<i>20% (so only 80% of 50m<sup>2</sup> was surveyed)</i>
Percentage with black ice (in which it should be possible to see bubbles)	<i>80%</i>
Maximum lake water depth (m)	<i>9 m</i>
Water depth along transect site (m)	
Ice thickness at time of transect (cm)	<i>20 cm</i>
Snow depth at time of transect (cm)	<i>12 cm</i>

## Sketch/Map/Picture of site



*This image comes from Google Earth and has been annotated using Paint and Power Point*

## Environmental Observations (check all that applies):

**Cracks in the ice:**  No Yes:  1-5  More than 5

**Snow on ice:**  None  Patchy snow  Continuous  Wet slush

**Lake water color:**  Brown  Clear

**Smell:**  None  H<sub>2</sub>S  Organic decay

**Vegetation** under the ice:  Few submerged plants beneath the ice  Many

Photosynthesis bubbles about **10** % of transect

**Lake margins:**  Steep  Flat  Erosion  Floating mats  Other : *surrounding low hills, drunk trees, southern shores are eroded, no drunk trees on the northern shores*

**Methane:** Large seep bubble clusters present in ice?  Yes  No

Open -hole hotspot seeps present on lake?  Yes  No

The site is in the following natural **biome**

- Tundra    Taiga/Boreal forest    Temperate Conifer forest    Temperate Deciduous/mixed forest
- Other:

The natural environment of the site has been modified by **human activity** in the following way:

- Urban dense settlement    Rural (villages)    Agriculture    Forestry
- Gravel pit    Reservoir    Little human influence    No human influence

**Additional comments:** *(for instance, are there beaver's works on the pond? Is the lake drained? Have you ever noticed methane ebullition on this lake, when? Etc)*

<b>Transect</b>								
<b>GPS Waypoint</b>	<b>Latitude</b> <i>(as red on your GPS)</i>	<b>Longitude</b> <i>(as red on your GPS)</i>	<b>Type of bubble</b> <b>(A, B, C or Hotspot)</b>	<b>Size 1</b> <b>(cm)</b>	<b>Size 2</b> <b>(cm)</b>	<b>Bubble product</b> <b>(size 1 x size 2)</b>	<b>White ice?</b>	<b>Comments</b>
<i>1</i>	<i>N60 41.766</i>	<i>W151 18.901</i>	<i>Margin</i>					
<i>2</i>	<i>N60 41.767</i>	<i>W151 18.902</i>	<i>Start</i>					
<i>3</i>	<i>N60 41.766</i>	<i>W151 18.905</i>	<i>B</i>	<i>10</i>	<i>20</i>	<i>200</i>		
<i>4</i>	<i>N60 41.761</i>	<i>W151 18.913</i>	<i>White ice</i>	<i>100</i>	<i>70</i>	<i>7000</i>	<i>x</i>	
<i>5</i>	<i>N60 41.760</i>	<i>W151 18.917</i>	<i>A</i>	<i>10</i>	<i>10</i>	<i>100</i>		
			<i>...</i>					

<b>Bubble traps</b>	
<b>Bubble traps set? (yes/no)</b>	<i>Yes</i>
Gas collected (yes/no)	<i>Yes</i>
Number of bottles collected	<i>2</i>
Bottles ID	<i>KW_Smith_01/2010_T1_1/2</i> <i>KW_Smith_01/2010_T1_2/2</i>
<b>Comments:</b>	

## Site photos

Please take at least:

- A picture from the beginning of each transect, toward the end of it. Specify the orientation (North, North East etc).
- A picture from the end of the transect, toward the beginning of it. Specify the orientation (North, North East etc).
- A picture of what you call an A, B, C bubbles and hotspot, with a scale (such as a glove).

Picture	Situation	Object
<i>Smith_KW-01/2010_T1_pic1</i>	<i>View to the North East from the beginning of the transect 1. Center of the lake.</i>	<i>Transect and lake shores</i>
<i>Smith_KW-01/2010_T1_pic2</i>	<i>View to the South West from the end of the transect 1. Center of the lake.</i>	<i>Transect and lake shores</i>
<i>Smith_KW-01/2010_T1_pic3</i>	<i>Tiny bubbles at the beginning of transect 1.</i>	<i>Tiny bubbles</i>
<i>Smith_KW-01/2010_T1_pic4</i>	<i>~10m after start of transect 1</i>	<i>"A" bubbles</i>